Supreme Court, U.S.
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No. 06-109

In The
Supreme Court of the United States

WESLEY SMITH,

Petitioner,

v.

BROOKSHIRE BROTHERS, INC.,

Respondent.

On Petition For Writ Of Certiorari To The Court Of Appeals Of Texas, First Judicial District

PETITION FOR WRIT OF CERTIORARI

ALICE OLIVER-PARROTT
Counsel of Record for Petitioner
MARIA TERESA ARGUINDEGUI
Attorney for Petitioner
SHARI GOLDSBERRY
Of Counsel
BURROW & PARROTT, L.L.P.
1301 McKinney Street
Suite 3500
Houston, Texas 77010-3092
(713) 222-6333

COCKLE LAW BRIEF PRINTING CO. (800) 225-6964
OR CALL COLLECT (402) 342-2831

QUESTIONS PRESENTED

Question One

Does the court of appeals' holding that Material Safety Data Sheets (MSDS) are not scientifically reliable conflict with federal statutes requiring such reliability and mandating reliance by certain designated persons?

Question Two

Does the court of appeals' conclusion that federally mandated MSDS and warning labels are not scientifically reliable evidence of causation undermine the use of MSDS by emergency responders and others who are required by law to rely on their scientific reliability and subject those persons to potential third-party liability?

Question Three

Does the court of appeals' conclusion that federally mandated MSDS are not scientifically reliable evidence of causation violate public policy?

PARTIES

Petitioner is Wesley Smith, Individually.

Respondent is Brookshire Brothers, Incorporated.

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PETITION FOR WRIT OF CERTIORARI

This is a chemical-exposure case. Wesley Smith filed this personal-injury lawsuit against his employer, Brookshire Brothers, Incorporated to recover damages for injuries he undisputedly sustained while on the job. While employed at Brookshire, Smith, a sixteen-year old boy at the time, was exposed to a combination of several known toxic chemicals at the direction of his immediate supervisor. The supervisor forced Smith to continue working without the benefit of protective equipment and consciously disregarded Smith's request for protective equipment. As a result of Brookshire's conduct, Smith suffered permanent respiratory injury. After a four-day trial, the jury returned a verdict in favor of Smith, concluding Brookshire's "negligence" and/or "failure to provide Smith a reasonably safe work place . . . proximately caused" his injuries. The jury also found clear and convincing evidence that the harm to Smith resulted from malice. Ultimately, the trial court entered a final judgment that awarded $46,000 in compensatory damages, $200,000 in punitive damages, $27,165.90 in prejudgment interest, and post-judgment interest on all damages at ten percent (10%) per annum until paid. Brookshire Brothers appealed the decision. The court of appeals rendered a take-nothing verdict because it ruled the evidence relied upon by Smith's expert witness, the federally mandated Material Safety Data Sheets for the specific products involved, were not scientifically reliable.

OPINIONS AND ORDERS BELOW

The Texas Supreme Court denied discretionary review in this case (App. C, *infra*) and its order is unpublished.

The opinion of the Court of Appeals for the First Judicial District (App. A) is reported at 176 S.W.3d 30. The Judgment of the 411th Judicial District Court, Trinity County, Texas is unpublished (App. B, *infra*).

JURISDICTION

The Texas Supreme Court denied discretionary review in this case. The Judgment of the Court of Appeals for the First Judicial District in Houston, Texas is that of the highest court possessing and exercising jurisdiction. (App. A, *infra*). This Court's jurisdiction rests on 28 U.S.C. §1257(a).

FEDERAL STATUTES AND REGULATIONS INVOLVED

The relevant provisions of the United States Code and Code of Federal Regulations are set forth below:

The Occupational Safety and Health Act of 1970 (OSHA), 84 Stat. 1590, 29 U.S.C. §651 et seq. (1982 ed.), authorizes the Department of Labor (DOL) to set health and safety standards for workplaces.

The Department of Labor promulgated a hazard communication standard requiring that the best, peer-reviewed scientific literature from the Material Data Safety Sheets. 29 C.F.R. §1910.1200 et seq. (1989).

STATEMENT OF THE CASE

The court of appeals' decision about the scientific reliability of federally mandated Material Safety Data Sheets ("MSDS") so greatly impacts the safety and welfare of the general public that this Court should grant petitioner's Writ of Certiorari in this case. The court of appeals' holding that federally mandated MSDS are not scientifically reliable is not only clearly erroneous, but it also now subjects health-care providers, emergency first responders and others to third-party liability for relying on MSDS when they are actually required by training and statute to rely on MSDS for diagnosis and treatment purposes. This is a jurisdictionally significant case presenting the Court for the first time the opportunity to address the scientific reliability of federally mandated MSDS and resolve the conflict between state and federal law created by the court of appeals' opinion, and correct the court of appeals' erroneous conclusion that MSDS are not scientifically reliable.

The court of appeals' holding that MSDS are not scientifically reliable simply defies logic, given the specific federal regulations that require manufacturers to reveal known risks and hazards and require that MSDS be scientifically reliable, and the information provided on the MSDS be based on established, peer-reviewed scientific literature. Clearly, this case presents issues of vital importance not only to the jurisprudence of the nation but to all those health-care providers, first-responders, and others, such as employers, employees, and transporter of hazardous chemicals, who are required by federal and state law to rely on the scientific reliability of MSDS. Attached as Exhibit G are just a few examples of those persons who

will be materially and negatively impacted by the court of appeals' erroneous opinion.

REASONS FOR GRANTING THE PETITION

The jurisdictional impact of this case is clearly significant, and it is important that this Court speak on the issue of the scientific reliability of Material Safety Data Sheets (MSDS), resolve the conflict created by the court of appeals' opinion, and correct the court's erroneous conclusion that MSDS are not scientifically reliable. The court of appeals' holding that MSDS are not scientifically reliable if left uncorrected will expose all those required by federal and state law to rely on the scientific reliability of MSDS to liability for acting consistently with federal law. Specifically, this Court should grant certiorari for the following reasons:

A. The court of appeals' holding that federally mandated MSDS is no evidence that the particular hazardous chemical can generally cause the injury specifically identified in the MSDS is contrary to and conflicts with federal regulations requiring the MSDS to be scientifically reliable and accurate.

The court of appeals' opinion holds that MSDS, which are federally mandated of every manufacturer and importer of hazardous chemicals, is no evidence that the particular hazardous chemical can generally cause the injury identified in the MSDS. The opinion is contrary to and conflicts with federal regulations that require that all MSDS be scientifically reliable and accurate. *Brookshire*

Brothers, Inc. v. Smith, 176 S.W.3d 30, 38 (Tex. App. – Houston [1st Dist.] 2004, pet. denied). In this case, the court of appeals held an evidentiary void existed and was caused by the lack of a specific, detailed showing of scientific reliability. The court held the evidentiary void could be remedied only by an established, scientific connection between the commercial cleaners and RADS (the injury sustained by petitioner). *Id.* This is precisely what the MSDS was designed to provide and did provide in this case.

Appendix B to 29 C.F.R. §1910.1200 mandates the standards to which the MSDS should adhere. Appendix B reads in pertinent part:

> The quality of a hazard communication program is largely dependent upon the adequacy and accuracy of the hazard determination. . . . Chemical manufacturers, importers, and employers evaluating chemicals are not required to follow any specific methods for determining hazards, but they ***must be able to demonstrate that they have adequately ascertained the hazards of the chemicals produced or imported*** in accordance with the criteria set forth in this Appendix.
>
> Hazard evaluation is a process which relies heavily on the professional judgment of the evaluator, particularly in the area of chronic hazards. The performance-orientation of the hazard determination does not diminish the duty of the chemical manufacturer, importer or employer to ***conduct a thorough evaluation, examining all relevant data and producing a scientifically defensible evaluation***. For purposes of this standard, the following criteria shall be used in making hazard determinations that meet the requirements of this standard.

1. Carcinogenicity: As described in paragraph (d)(4) of this section and Appendix A of this section, a determination by the National Toxicology Program, the International Agency for Research on Cancer, or OSHA that a chemical is a carcinogen or potential carcinogen will be considered conclusive evidence for purposes of this section. In addition, however, ***all available scientific data on carcinogenicity must be evaluated*** in accordance with the provisions of this Appendix and the requirements of the rule.

2. Human data: ***Where available, epidemiological studies and case reports of adverse health effects shall be considered in the evaluation.***

3. Animal data: Human evidence of health effects in exposed populations is generally not available for the majority of chemicals produced or used in the workplace. Therefore, ***the available results of toxicological testing in animal populations shall be used*** to predict the health effects that may be experienced by exposed workers. In particular, the definitions of certain acute hazards refer to specific animal testing results (see Appendix A).

4. Adequacy and reporting of data. ***The results*** of any studies which are designed and conducted according to established scientific principles, and which report statistically significant conclusions regarding the health effects of a chemical, ***shall be*** a sufficient basis for a hazard determination and ***reported on any material safety data sheet***. In vitro studies alone generally do not form the basis for a definitive finding of hazard under the HCS since they have a positive or

> negative result rather than a statistically significant finding.

29 C.F.R. §1910.1200 App. D (emphasis added).

The court of appeals' conclusion that MSDS are not scientifically reliable is directly in conflict with federal regulations which specifically require that the information provided on the MSDS be scientifically reliable. As detailed above, manufacturers and importers of hazardous chemicals are, as a matter of law, required to research the best, peer-reviewed scientific literature to form the MSDS. 29 C.F.R. §1910.1200(g)(5). See e.g. *Curtis v. M&S Petroleum*, 174 F.3d 661 (5th Cir. 1999); *Westberry v. Gislared Gummi AB.*, 178 F.3d 257, 265 (4th Cir. 1999); *McCullock v. H.B. Fuller Co.*, 61 F.3d 1038, 1043-44 (2nd Cir. 1995). Should the court of appeals' decision be allowed to stand, it will render these federal regulations requiring the MSDS to be scientifically reliable, completely meaningless, and puts the jurisprudence of the State of Texas in direct conflict with federal law.

The court of appeals' holding that epidemiological studies are required defies common sense when discussing known hazardous chemicals. The federal government's regulation and enforcement of the MSDS ensures the scientific reliability of the MSDS. It makes absolutely no sense to expose existing populations to known toxins when the federal government requires manufacturers and importers of hazardous chemicals to prepare the MSDS and warning labels with "all the information regarding health and environmental hazards, analyze the chemistry of hazardous chemicals, assess the hazard, provide hazard warning information, and identify potential injury." 29 C.F.R. §1910.1200 (1998). All manufacturers of hazardous

chemicals must make a health hazard determination that includes a mandatory requirement to consider "when available, epidemiological studies and case reports of adverse health effects" when forming a MSDS. 29 C.F.R. §1910.1200, App. B.

Finally, the court of appeals erroneously relies on the Fifth Circuit's opinion in *Moore v. Ashland.* In *Moore,* the Fifth Circuit after finding the expert offered ***no*** scientific support for his general theory that exposure to Toluene solution at any level would cause RADS, the Court stated:

> Given the paucity of facts Dr. Jenkins had available about the level of Moore's exposure to the Toluene solution, his causation opinion would have been suspect even if he had scientific support for the position that the Toluene solution could cause RADS in a worker exposed to some minor level of the solution. Under *Daubert*, any step that renders the analysis unreliable . . . renders the expert's testimony inadmissible. This is true whether the step completely changes a reliable methodology or merely misapplies that methodology. *See In re Paoli R.R. Yard PCB Litigation,* 35 F.3d 717, 745 (3d Cir. 1994) (emphasis in original).

Moore v. Ashland, 151 F.3d 269, 279 n. 10 (5th Cir. 1998).

In this case, there is simply no dispute that the methodology is reliable, and that the methodology was applied correctly.

B. The court of appeals' holding that MSDS are not scientifically reliable will expose all those required by federal law to rely on the scientific reliability of MSDS to liability for acting consistently with federal law.

The court of appeals' decision is not only directly in conflict with federal law, but jeopardizes the ability of health-care providers and other emergency responders to make speedy and informed decisions about how to treat those who are exposed to hazardous chemicals. The court of appeals' opinion also negatively affects the decisions of those required to rely on MSDS in the handling and transporting of hazardous chemicals. Persons handling and transporting hazardous chemicals are now at an increased risk of third-party liability for reliance on MSDS. Federal and state law require employers, employees, practicing physicians, toxicologists, emergency room doctors, hazardous materials teams and other health care providers to rely on MSDS and warning labels prepared by the manufacturer. 29 C.F.R. §1910.1200 (1989). They do so because the manufacturer is required by the federal law to consider "when available, epidemiological studies and case reports of adverse health effects" when making a health hazard determination in forming the MSDS. 29 C.F.R. §1910.1200, App. B.

As such, medical books and treatises tell physicians to rely on MSDS and warning labels. AMERICAN MEDICAL ASSOCIATION, GUIDES TO THE EVALUATION OF PERMANENT IMPAIRMENT (Lina Cocchiarella, MS, MSC & Gunnar B.J. Andersson, MD, PhD eds., 5th ed.) (2002); ENVIRONMENTAL AND OCCUPATIONAL MEDICINE (William N. Rom, M.D., M.P.H. ed., 2nd ed.) (1992); OCCUPATIONAL MEDICINE (Carl Zenz, M.D., Sc.D., Q. Bruce Dickerson, M.D., M.P.H., Edward P. Harvarth, Jr., M.D.,

M.P.H. eds., 3rd ed.) (1994); OCCUPATIONAL AND ENVIRONMENTAL RESPIRATORY DISEASE (Phillip Harber, M.D., M.P.H., Marc B. Schenker, M.D., M.P.H., John R. Balmes, M.D. eds.); and HAZARDOUS MATERIALS TOXICOLOGY, CLINICAL PRINCIPLES OF ENVIRONMENTAL HEALTH (John B. Sullivan, Jr., M.D., Gary R. Krieger, M.D., M.P.H.) (1992). These medical books and treatises demonstrate the utilization of MSDS and warning labels is widely recorded in the occupational medicine literature and in fact, "are required," "is necessary," "must be included," "can be quite helpful" and serves as a "cornerstone" according to the literature. *Id.*

Dr. Snodgrass, of the University of Texas Medical Branch, Clinical Pharmacology-Toxicology and Texas Poison Center, filed an amicus submission in the court of appeals that clearly explains physicians are educated and directed to rely on MSDS in treating patients exposed to hazardous chemicals. (App. E., *infra.*) The court of appeals' opinion would now require physicians and educators of physicians to change their teaching practices and treatment protocols when dealing with injuries resulting from exposure to hazardous chemicals. Such a change has no reasonable basis in scientific fact, and no basis in law. The impact of the court of appeals' finding regarding the scientific reliability of MSDS and warning labels is far reaching and should be corrected.

C. The court of appeals' degradation of MSDS is contrary to public policy.

Serious public policy concerns are raised by the court of appeals' erroneous conclusion about the scientific reliability of federally mandated MSDS. The safety and welfare of

the general public is at risk and those persons willing to serve and provide medical treatment to victims of exposure to hazardous chemicals will be subject to unwarranted liability. Such a result is directly contrary to the public policy of the State of Texas, the nation as a whole, and the federal laws which created and govern the requirements of MSDS.

The amicus submissions by the District Chiefs of the Hazardous Materials Response Team demonstrate that the Houston Fire Department's ability to serve the general public will be seriously and negatively eroded if the court of appeals' erroneous holding is not reversed. (App. F, *infra*.) The amicus submission of District Chief Snell and District Chief White clearly demonstrate why it is important that this Court exercise jurisdiction in this case and correct the court of appeals' decision. District Chief Snell and District Chief White both make clear in their respective submissions that members of the Hazardous Materials Response Team are educated and directed to rely on MSDS and, in fact, must routinely do so to perform their duties as emergency first responders to incidents involving hazardous chemicals and the safety and welfare of the general public. The court of appeals' opinion now says to emergency responders that this federally mandated information is not scientifically reliable in spite of regulations that require scientific reliability. The safety and welfare of the general public clearly merits this Court's consideration of the important issues presented by this case and the amicus submissions attached hereto demonstrate why this Court should exercise jurisdiction and correct the court of appeals' erroneous holding that federally mandated MSDS are not scientifically reliable.

CONCLUSION

For the foregoing reason, Petitioners respectfully request that certiorari be granted.

Respectfully submitted,

ALICE OLIVER-PARROTT
Counsel of Record for Petitioner
MARIA TERESA ARGUINDEGUI
Attorney for Petitioner
SHARI GOLDSBERRY
Of Counsel
BURROW & PARROTT, L.L.P.
1301 McKinney Street
Suite 3500
Houston, Texas 77010-3092
(713) 222-6333

APPENDIX A

2004 WL 1064776

Court of Appeals of Texas,
Houston (1st Dist.).
BROOKSHIRE BROTHERS, INC., Appellant,
v.
Wesley SMITH, Appellee.
No. 01-02-00677-CV.

May 13, 2004.
Supplemental Opinion Denying
Further Rehearing and En Banc
Reconsideration Feb. 17, 2005.

Curtis W. Fenley III, Warren T. McCollum, Fenley & Bate, L.L.P., Lufkin, TX, for Appellant.

Alice Oliver-Parrott, Maria Teresa Arguindegui, Burrow & Parrott, L.L.P., Houston, TX, Reese Andrews, Nacogdoches, TX, for Appellee.

Panel consists of Chief Justice RADACK and Justices ALCALA and HIGLEY.

OPINION ON REHEARING

ELSA ALCALA, Justice.

Appellee, Wesley Smith, has filed a motion for rehearing and a motion for rehearing en banc of our opinion on rehearing, issued on December 31, 2003. Appellant, Brookshire Brothers, Inc. (Brookshire), has filed a response to both motions. We grant rehearing, withdraw our opinion of December 31, 2003, issue this opinion in its stead, and vacate our judgment of December 31, 2003.

Accordingly, we deny the motion for rehearing en banc as moot.[1]

In this chemical-exposure case, Brookshire appeals a jury verdict rendered in favor of appellee, Wesley Smith, for injuries Smith claims that he sustained when he was exposed to commercial cleaning products while employed by Brookshire. The jury awarded Smith $46,000 in actual damages and $250,000 in punitive damages, but the trial court reduced the punitive-damages award to $200,000. *See* Tex. Civ. Prac. & Rem.Code Ann. § 41.008 (Vernon Supp.2004). In seven issues, Brookshire challenges the legal sufficiency of Smith's causation evidence, the admissibility of that evidence, and the jury's finding of malice. We reach only the legal-sufficiency issue and reverse and render judgment that Smith take nothing.

Background

In September 1995, Smith was employed as a general maintenance worker at a Brookshire grocery store. During an evening shift, Doug Kranzler, Smith's immediate supervisor, directed Smith to clean the walls and vents of the store's bakery. Kranzler provided Smith with several commercial cleaners, including Clorox Liquid Bleach, Easy-Off Oven Cleaner, Lime-A-Way, Scrubbing Bubbles, and Clorox Formula 409. After Smith began applying the commercial cleaners in the bakery, he experienced irritation to his eyes, skin, nose, and throat. Smith complained to Kranzler about the irritation and asked for protective gear to wear while cleaning the bakery. Kranzler informed

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[1] *See Giesberg v. State*, 945 S.W.2d 120, 131 n. 3 (Tex.App.-Houston [1st Dist.] 1996), *aff'd*, 984 S.W.2d 245 (Tex.Crim.App.1998).

Smith that protective gear was not available and directed Smith to complete his work. Despite persistent irritation, Smith continued cleaning the bakery.

On the following evening, Kranzler again directed Smith to use the same combination of commercial cleaners to clean the store's bathroom. Kranzler did not provide Smith with any protective gear, and Smith experienced the same irritations as those of the previous evening. Smith left at the end of his shift, feeling ill. Smith's parents, concerned about his condition, took him for emergency-room treatment. Smith was diagnosed with reactive airways dysfunction syndrome (RADS), an asthmatic condition that impairs breathing and oxygen flow.

Smith sued Brookshire for personal injuries, alleging that Brookshire's negligence and failure to provide a reasonably safe workplace proximately caused his RADS. At trial, Smith presented excerpts of the deposition testimony of Gary Friedman, M.D., a board-certified specialist in pulmonary disease and internal medicine, as his sole evidence of causation.[2] Dr. Friedman testified that the September 1995 chemical exposure proximately caused Smith to suffer from either RADS or a similar asthmatic condition. Dr. Friedman based his opinion on material

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[2] Smith also presented the testimony of Smith's treating physician, G.W. Dahlberg, M.D., and an industrial-hygiene expert, Vernon E. Rose, Ph.D. Dr. Dahlberg testified that Smith suffered from RADS. Dr. Rose testified that Brookshire failed to provide Smith with a reasonably safe workplace and that this failure constituted malice. Neither Dr. Dahlberg nor Dr. Rose testified that Smith's exposure to the commercial cleaners caused RADS, and Smith concedes on appeal that neither doctor "was called to testify ... [regarding] causation." Thus, we evaluate Dr. Friedman's testimony as Smith's sole evidence of causation.

safety data sheets (MSDS), the commercial cleaners' warning labels, Smith's medical records, and Smith's personal account of his exposure to commercial cleaners on the evenings in question. The MSDS and warning labels identified the contents of the commercial cleaners and the health hazards associated with each. Dr. Friedman clarified, however, that he was not an expert in chemistry. He did not know which commercial cleaner, or combination of cleaners, caused Smith's RADS and did not know the amount of chemical concentration to which Smith had been exposed. At no point did Dr. Friedman refer to any scientific literature associating RADS with commercial cleaners.

Causation and Chemical Exposure

In its fifth issue, which is dispositive of this appeal, Brookshire contends that the evidence was legally insufficient to prove that Smith's RADS resulted from chemical exposure. This issue requires us to decide whether the causation evidence Dr. Friedman offered was scientifically reliable and thus more than a scintilla of evidence to support the judgment in Smith's favor.

A. Preservation of Error

As a preliminary matter, we address Smith's contention that Brookshire did not preserve error. "To preserve a complaint that scientific evidence is unreliable and thus, no evidence, a party must object to the evidence before trial or when the evidence is offered." *Kerr-McGee Corp. v. Helton,* No. 02-0356, 47 Tex. Sup.Ct. J. 248, 251, ___ S.W.3d ___, ___, 2004 WL 224458, *5 (Jan. 30, 2004) (quoting *Maritime Overseas Corp. v. Ellis,* 971 S.W.2d 402,

409 (Tex.1998)). An objection made after the jury has returned its verdict comes too late. *Id.* (quoting same). The purpose of the timeliness requirement is twofold: to allow the offering party "an opportunity to cure any defect" and to prevent "trial and appeal by ambush." *Id.* (quoting same).

In *Kerr-McGee Corporation,* the expert testimony of Michael Riley was the only evidence offered on the amount of damages for breach of an implied covenant to protect a leasehold. 47 Tex. Sup.Ct. J. at 248, 133 S.W.3d at ___, 2004 WL 224458 at *1. After cross-examining Riley, Kerr-McGee objected and moved to strike the testimony as unreliable. *Id.* The trial court overruled the motion and entered judgment on the jury verdict, and the court of appeals affirmed. *Id.* On Kerr-McGee's petition for review, the supreme court concluded that Riley's expert testimony was unreliable and, therefore, no evidence. As here, the responding party argued that Kerr-McGee did not timely object and therefore had not preserved error. *See id.* at 251, ___ S.W.3d at ___, 2004 WL 224458 at *4-*5. The supreme court held that Kerr-McGee preserved error, as required by *Maritime Overseas v. Ellis,* by objecting to Riley's testimony immediately after cross-examining him. *Kerr-McGee Corp.,* 47 Tex. Sup.Ct. J. at 252, ___ S.W.3d at ___, 2004 WL 224458 at *6.

Before trial began, Brookshire moved to strike Dr. Friedman's testimony on the grounds that it was scientifically unreliable. The trial court considered this motion at a pretrial hearing and overruled Brookshire's objection.[3] Dr.

[3] Although Brookshire captioned its motion as a "Motion in Limine to Exclude Expert Witnesses," both the motion and the reporter's record show that the purpose of the motion was to bar Dr. Friedman from

(Continued on following page)

Friedman testified at trial through excerpts of his deposition read into the record. Before his testimony was offered, the trial court ruled on the objections that Brookshire had made during the deposition and thus clarified which excerpts would come into evidence. As Dr. Friedman's deposition testimony was presented, Brookshire objected again to Dr. Friedman's testimony, as follows: "[H]e is not qualified based on *Daubert-Havner.* He does not know the chemical concentrations and does not know the chemicals and does not know the exposures. His testimony is based on MSDS sheets, which is improper scientific evidence." Brookshire's objection occurred just before the portion of Dr. Friedman's testimony in which he referred to MSDS sheets. The trial court overruled Brookshire's objection, noting, "Your objection is overruled. You have it on the record."

We conclude that Brookshire complied with the timeliness requirements of *Maritime Overseas v. Ellis* by moving to strike and exclude Dr. Friedman's testimony, both before trial began and during trial, on the grounds that his expert testimony was not reliable. There was no trial by ambush, and there has been no appeal by ambush. *See Kerr-McGee Corp.*, 47 Tex. Sup.Ct. J. at 252, ___ S.W.3d at ___, 2004 WL 224458 at *5.

B. Standard of Review

Brookshire's burden on appeal is to demonstrate that there is no evidence to support the adverse judgment in favor of Smith. *See Croucher v. Croucher,* 660 S.W.2d 55,

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testifying. Indeed, Smith's trial counsel referred to Brookshire's pretrial motion as seeking that result.

58 (Tex.1983). In determining whether there is no evidence of probative force to support a jury's finding, we consider the evidence in the light most favorable to the verdict and indulge every reasonable inference in the prevailing party's favor. *Merrell Dow Pharm., Inc. v. Havner,* 953 S.W.2d 706, 711 (Tex.1997). We will sustain a no-evidence point when (1) there is a complete absence of evidence of a vital fact, (2) the court is barred by rules of law or of evidence from giving weight to the only evidence offered to prove a vital fact, (3) the evidence offered to prove a vital fact is no more than a mere scintilla, or (4) the evidence conclusively establishes the opposite of a vital fact. *Id.* More than a scintilla of evidence exists when the evidence supporting the finding, as a whole, rises to a level that would enable reasonable and fair-minded people to differ in their conclusions. *Id.*

To establish causation in a personal-injury suit, a plaintiff must prove that the defendant's conduct caused an event and that this event caused the plaintiff to suffer compensable injuries. *Burroughs Wellcome Co. v. Crye,* 907 S.W.2d 497, 499 (Tex.1995); *Coastal Tankships, U.S.A., Inc. v. Anderson,* 87 S.W.3d 591, 603 (Tex.App.-Houston [1st Dist.] 2002, pet. denied). When a lay person's general experience and common sense will not enable that person to determine causation, expert testimony is required. *Coastal Tankships,* 87 S.W.3d at 603. Expert testimony is particularly necessary in chemical-exposure cases, in which medically complex diseases and causal ambiguities compound the need for expert testimony. *See id.; see also Hernandez v. Tex. Employers' Ins. Ass'n,* 783 S.W.2d 250, 252-53 (Tex.App.-Corpus Christi 1989, no writ) (holding that expert testimony needed to determine cause of asthma, which had uncertain causal nature).

Expert testimony must be reliable; otherwise, it is not evidence.[4] *See Havner,* 953 S.W.2d at 712-13; *Coastal Tankships,* 87 S.W.3d at 610. An expert's bare opinion will not suffice. *Havner,* 953 S.W.2d at 711. We review an expert's testimony in its entirety and will not accept the expert's opinion as some evidence merely because the expert used "magic words." *Id.* Expert testimony that is not based on reasonable medical probability, but relies instead on possibility, speculation, or surmise, does not assist the jury and cannot support a judgment. *See id.* at 712.

Much like toxic-tort plaintiffs, chemical-exposure plaintiffs must prove both general and specific causation. *See Havner,* 953 S.W.2d at 714; *Coastal Tankships,* 87 S.W.3d at 602. General causation asks whether a substance is capable of causing a particular injury in the general population; specific causation asks whether that substance caused a particular individual's injury. *Id.* Proving one type of causation does not necessarily prove the other, and logic dictates that both are needed for a chemical-exposure plaintiff to prevail.[5] *Id.; Minn. Mining*

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[4] The following non-exclusive factors may be considered in determining reliability: (1) the extent to which the expert's theory has been or can be tested; (2) the extent to which the expert's technique relies upon his own subjective interpretation; (3) whether the expert's theory has been subjected to peer review and publication; (4) the potential rate of error of the theory; (5) whether the expert's theory or technique has been generally accepted as valid by the relevant scientific community; and (6) the non-judicial uses that have been made of the expert's theory or technique. *See E.I. du Pont de Nemours & Co. v. Robinson,* 923 S.W.2d 549, 557 (Tex.1995).

[5] A plaintiff may not be able to offer direct, reliable evidence of specific causation. *Merrell Dow Pharm., Inc. v. Havner,* 953 S.W.2d 706, 715 (Tex.1997). A plaintiff may, however, be able to prove specific causation circumstantially by offering general-causation evidence, such

(Continued on following page)

& Mfg. Co. v. Atterbury, 978 S.W.2d 183, 199-200 (Tex.App.-Texarkana 1998, pet. denied).

C. Dr. Friedman's Testimony

Smith contends that Dr. Friedman based his causation opinion on (1) specialized training and experience, (2) Smith's medical records and his account of the exposure in question, (3) the MSDS and the commercial cleaners' warning labels, and (4) "other peer review articles." After reviewing Dr. Friedman's testimony in its entirety, we conclude that his testimony cannot support the judgment in Smith's favor because Dr. Friedman's opinion does not provide scientifically reliable proof of general causation.

Dr. Friedman did not present a scientific foundation regarding general causation, as required by *Havner. See id.* at 714. Specifically, Dr. Friedman did not refer to a single epidemiological study or scientific article to prove that exposure to commercial cleaners can cause RADS. Although Dr. Friedman testified that Lime-A-Way decomposes into a toxin "known to cause RADS," he did not substantiate that conclusion with any scientific evidence. Rather, without presenting a scientific basis for general causation, Dr. Friedman opined that Smith's exposure to toxins in the commercial cleaners, as identified in the MSDS and warning labels, caused either RADS or a similar asthmatic condition. A jury may not presume general causation, however. *See Coastal Tankships,* 87

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as epidemiological studies, and by showing similarities between himself and the studies' subjects. *Id.* at 720; *Coastal Tankships, U.S.A., Inc. v. Anderson,* 87 S.W.3d 591, 603 n. 21 (Tex.App.-Houston [1st Dist.] 2002, pet. denied).

S.W.3d at 610-11. The absence of any general-causation evidence, combined with the absence of reliable scientific literature, creates a fatal evidentiary gap in Smith's claim. *See id.; see also Havner,* 953 S.W.2d at 712 (citing *Rosen v. Ciba-Geigy Corp.,* 78 F.3d 316, 319 (7th Cir.1996) (an expert who supplies nothing but a bottom line supplies nothing of value to the judicial process)).

1. *Specialized Training and Experience*

Although Dr. Friedman is an accomplished physician with extensive training and expertise, the controlling issue is not the adequacy of his qualifications but whether his opinion testimony was scientifically reliable. No matter how qualified an expert is, his opinion must still demonstrate scientific indicia that evidences reasonable medical probability before the opinion can be accorded evidentiary value. *See Havner,* 953 S.W.2d at 712. Without a scientific indicia of reliability, the expert's opinion is mere speculation. *See id.* To the extent that Smith argues that Dr. Friedman relied on his own education, training, and expertise in forming his opinion, therefore, Smith's argument relates only to Dr. Friedman's qualifications and does not address reliability.

2. *Smith's Medical Records and Personal Account of the Exposure*

Smith contends that Dr. Friedman's testimony regarding Smith's medical records and his personal account of the exposure in question sufficiently demonstrated scientific

reliability.[6] The excerpts of Dr. Friedman's deposition testimony that Smith read to the jury, however, did not connect Smith's medical records or his personal account of the exposure with a scientific showing of general causation. Dr. Friedman's testimony regarding the medical records related to the type and extent of Smith's injury without offering a scientific insight into the general causes of Smith's condition. Smith attempts to substantiate Dr. Friedman's causation opinion by emphasizing portions of Dr. Friedman's testimony that do not relate to general causation. There was no showing at trial that Smith's medical records addressed whether the commercial cleaners at issue were generally capable of causing RADS. To prove general causation, Dr. Friedman needed to put forth a scientific foundation. *See id.* at 719.

3. *MSDS and Warning Labels*

The record shows that Dr. Friedman based his causation opinion on the MSDS and the warning labels of the commercial cleaners Smith used. Dr. Friedman's extensive reliance on the MSDS and warning labels was nevertheless insufficient because neither the MSDS nor the warning labels, standing alone, provide the type of specific, detailed showing of scientific reliability required to accord evidentiary value to an expert's opinion. *See Coastal Tankships,* 87 S.W.3d at 611 (holding that medical records, discharge summaries, and MSDS were insufficient to

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[6] The medical records were obtained from Smith's treating physicians, G.W. Dahlberg, M.D., C. Wayne Lawrence, Ph.D., and Richard Jackson, M.D. Dr. Dahlberg and Dr. Jackson treated Smith for RADS during the time leading up to trial, and Dr. Lawrence treated Smith for anxiety.

establish scientific reliability); *Moore v. Ashland Chem., Inc.*, 151 F.3d 269, 278 (5th Cir.1998) (noting that MSDS have limited value in determining causation because of lack of evidence showing what tests were conducted in compiling MSDS). Smith is correct in asserting that the MSDS and the warning labels identified particular toxins in the commercial cleaners. Lime-A-Way's MSDS and warning label, for example, identified asthma or RADS as a potential injury that could result from high levels of exposure. But the MSDS and warning labels did not demonstrate, scientifically, that the particular toxins at issue generally cause RADS.[7] *See Moore*, 151 F.3d at 278; *Coastal Tankships*, 87 S.W.3d at 611. There was no evidence produced at trial that discussed the scientific foundation used in formulating the conclusions contained in either the MSDS or the warning labels. Thus, even with the MSDS and warning labels, an evidentiary void concerning general causation remained in Dr. Friedman's opinion. This void could have been remedied only by an

[7] In contending that Dr. Friedman's reliance on the MSDS provided an adequate scientific basis for general causation, Smith relies on *Curtis v. M & S Petroleum*, 174 F.3d 661 (5th Cir.1999). In *Curtis*, however, the expert cited several scientific studies in support of his premise regarding general causation. *See id.* at 669. The court noted that "both scientific literature and strong circumstantial evidence support the causal connection." *Id.* at 670. *Curtis* did not, as Smith contends, reject *Moore's* holding that, in the absence of an established scientific connection between the chemical exposure and illness, MSDS are insufficient to show reliability. *See Moore v. Ashland Chem. Inc.*, 151 F.3d 269, 278 (5th Cir.1998). In this case, because Dr. Friedman did not establish a scientific connection between Smith's exposure to commercial cleaners and RADS, his reliance on MSDS was not sufficient to place evidentiary value on his causation opinion. *See Havner*, 953 S.W.2d at 712-13 (holding that expert testimony that is not reliable is not evidence).

established, scientific connection between the commercial cleaners and RADS. *See Moore,* 151 F.3d at 278.

4. *"Other Peer Review Articles"*

Smith argues that Dr. Friedman established the necessary scientific connection when he testified regarding "other peer review articles," including an article by Arch Carson, M.D., before providing the causation opinion. Although Dr. Friedman briefly answered a question regarding Dr. Carson's article, Dr. Friedman mentioned the article only in passing and never referred to it for the proposition that the commercial cleaners at issue generally cause RADS.[8] In addition, although he discussed MSDS extensively, Dr. Friedman did not discuss Dr. Carson's article in his causation report. The record does not, therefore, support Smith's assertion that Dr. Friedman relied on Dr. Carson's article in forming an opinion regarding general causation.

As to any "other peer review articles," the only other article to which Dr. Friedman referred during his testimony was an article published in the *American Review of Respiratory Disease.* This article outlines the American Thoracic Society's guidelines on the evaluation of asthma

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[8] At one point during the testimony, Smith asked Dr. Friedman the following question regarding plaintiff's exhibit 19:

> **Smith's Counsel**: No. 19, this is an article that was written by Dr. Carson, along with a coauthor; and it indicates, I believe, that one of the determinants of injury, and I turn your attention to page 519, it says, "Determinants of injury." And it says, "Toxic factors." Is one of those factors, Dr. Friedman, the duration of exposure?
>
> **Dr. Friedman**: Yes.

impairment and disability, but is apparently a diagnosis guide that is unrelated to causation. There was no testimony at trial that referenced the article as scientific evidence of general causation. Contrary to Smith's contention, the article appears irrelevant to the issue of general causation.

Conclusion

In sum, the excerpts of Dr. Friedman's deposition testimony that Smith read to the jury did not present a general-causation opinion based on reasonable medical probability. Dr. Friedman provided no scientific support for his theory that Smith's exposure to the commercial cleaners in question was capable of causing RADS. The analytical gap between Dr. Friedman's causation opinion and the scientific data advanced to support that opinion was simply too wide. *See Moore,* 151 F.3d at 279. Because Smith's causation expert provided opinion testimony that was mere conjecture and, therefore, not evidence, we hold that no scientifically reliable evidence supports the jury's verdict in favor of Smith. *See Havner,* 953 S.W.2d at 712.

We sustain issue five. We need not address Smith's remaining issues.

We reverse the judgment of the trial court and render judgment that Smith take nothing.

SUPPLEMENTAL OPINION ON MOTIONS FOR FURTHER REHEARING AND FOR EN BANC RECONSIDERATION

ELSA ALCALA, Justice.

Appellee, Wesley Smith (Smith), has challenged our opinion issued on rehearing on May 13, 2004 by filing a "Motion for Rehearing En Banc." We construed Smith's motion as requesting both further rehearing and en banc reconsideration.[1] We have denied further rehearing, and the en banc Court has voted to deny en banc reconsideration.

We issue this supplement to our opinion of May 13, 2004 to (1) explain the settled practice that this Court follows when a party timely files both a motion for rehearing or further rehearing and a motion for en banc reconsideration, as we described that practice in *Butler v. State,* 6 S.W.3d 636, 637 n. 1 (Tex.App.-Houston [1st Dist.] 1999, pet. ref'd), and thus clarify that (2) the *Butler* practice applies in civil cases.

Procedural Background

This Court has issued three opinions in this case – an original opinion, issued on July 31, 2003, and two opinions on rehearing issued on December 31, 2003 and May 13, 2004. Smith challenged each of these by filing a single motion in which he requested both rehearing by the original panel of justices who decided the case and reconsideration by the en banc Court. Appellant, Brookshire

[1] The Rules of Appellate Procedure contain no provisions for "rehearing en banc." *See* Tex.R.App. P. 49.7 (En Banc Reconsideration).

Brothers, Inc., responded to all three motions. The Court has applied the same procedural practice to each of Smith's challenges to the three opinions. The panel of justices who heard the case has twice granted Smith's motions for rehearing by issuing a new opinion and judgment. These issued on December 31, 2003 to replace the July 31, 2003 opinion and judgment, and on May 13, 2004 to replace the December 31, 2003 opinion and judgment. Smith's motions for en banc reconsideration of the July 31, 2003 and December 31, 2003 opinions were rendered moot when the original panel granted rehearing.[2]

After we issued our May 13, 2004 opinion on rehearing, Smith timely filed a "Motion for Rehearing en Banc." We construed that motion as requesting both further rehearing and en banc reconsideration. The justices who participated in the May 13, 2004 panel opinion considered Smith's motion, to the extent that it constituted a motion for further rehearing, but concluded that it had no merit. Smith's motion was then presented to the en banc Court, which voted to deny en banc reconsideration.

Discussion

A motion for rehearing differs from and serves a different purpose than a motion for en banc reconsideration. For example, stricter time limits govern the motion for rehearing than govern the motion for en banc reconsideration. *Compare* Tex.R.App. P. 49.1 (must file motion for

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[2] *See Hartrick v. Great Am. Lloyds Inc. Co.*, 62 S.W.3d 270, 272 (Tex.App.-Houston [1st Dist.] 2001, no pet.) (opinion on rehearing; citing *Giesberg v. State*, 945 S.W.2d 120, 131 n. 3 (Tex.App.-Houston [1st Dist.] 1997) (opinion on rehearing), *aff'd*, 984 S.W.2d 245 (Tex.Crim.App.1998)).

rehearing within 15 days after court-of-appeals judgment is rendered) *with* Tex.R.App. P. 49.7 (may file motion for en banc reconsideration while court of appeals has plenary jurisdiction);[3] *see also* Tex.R.App. P. 19.1 (plenary power of court of appeals expires 60 days after judgment if no timely filed motion to extend time or motion for rehearing is then pending); Tex.R.App. P. 41.2(c) (stating that en banc reconsideration is disfavored and listing standards); Tex.R.App. P. 49.7 (reconsideration en banc suspends finality of panel's judgment or order).

Whether seeking rehearing, pursuant to rule 49.1, or further rehearing, pursuant to rule 49.5, a party's sole purpose is to convince the panel of justices who considered the case to change the decision because it was erroneous – for whatever reason. *See* Tex.R.App. P. 49.1, 49.5; *see also* Tex.R.App. P. 49.3 (authorizing majority of justices who participated in the case to grant rehearing). In contrast, en banc reconsideration is limited to situations in which (1) en banc reconsideration is necessary to secure or maintain uniformity of the Court's decisions or (2) extraordinary circumstances require en banc consideration. *See* Tex.R.App. P. 41.2(c).

Smith's "Motion for Rehearing en Banc" begins by arguing that extraordinary circumstances require en banc consideration of this case and thus invokes one of the standards of rule 41.2(c). *See id.* The arguments in the motion, however, repeatedly assert that "the panel opinion

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[3] Thus, a party who does not timely file a motion for rehearing or timely move for an extension of time to file a motion for rehearing, pursuant to rule 49.8, is limited to seeking en banc reconsideration within the period of the appellate court's plenary power. *See* Tex.R.App. P. 19.1(a), 49.7, 49.8.

is wrong." The substance of the motion thus concerns matters pertinent to motions for further rehearing under rule 49.5 and matters concerning rule 41.2(c).

When a party timely files both a motion for rehearing or further rehearing and a motion for en banc reconsideration, it has long been the practice of this Court to present the motion for rehearing or further rehearing to the original panel of justices who heard the case; if the panel denies rehearing or further rehearing, as here, the motion for en banc reconsideration is then presented to the en banc Court. *See Butler v. State,* 6 S.W.3d 636, 637 & n. 1 (Tex.App.-Houston [1st Dist.] 1999, pet. ref'd); *see also Barker v. Eckman,* No. 01-01-00079-CV, slip op. at 2, 2004 WL 163462 at *1 (Tex.App.-Houston [1st Dist.] Jan. 22, 2004, pet. granted) (mem. opinion on rehearing; citing *Butler* for discussion of treatment of motions for en banc consideration).[4]

Having considered the merits of Smith's "motion for rehearing en banc," we deny the motion to the extent that it constituted a further motion for rehearing under rule 49.5. *See* Tex.R.App. P. 49.5. On presentation of Smith's request for en banc reconsideration, the en banc Court denied reconsideration en banc. *See* Tex.R.App. P. 49.7.

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[4] If the panel grants rehearing, however, as occurred here twice previously, then the "Motion for Rehearing En Banc" is rendered moot. *See Hartrick,* 62 S.W.3d at 272 (citing *Giesberg,* 945 S.W.2d at 131 n. 3).

Conclusion

We deny further rehearing.

En banc reconsideration was requested. No majority of the en banc Court having voted for reconsideration, en banc reconsideration is denied.

2004 WL 1064776 (Tex.App.-Hous. (1 Dist.))

APPENDIX B

CAUSE NO. 17290

WESLEY SMITH	§	**IN THE DISTRICT COURT OF**
VS.	§	**TRINITY COUNTY, TEXAS**
BROOKSHIRE BROTHERS, INC.	§	**411th JUDICIAL DISTRICT**

JUDGMENT

On the 10th day of December, 2001, came on to be heard this civil cause, wherein Wesley Smith, the Plaintiff in the cause, appeared both in person and through his attorney of record and announced ready for trial, and further, that Brookshire Brothers, Inc., Defendant in the cause, appeared both by designated corporate representative and through its attorney of record and announced ready for trial, and a jury having been previously demanded a jury consisting of twelve qualified jurors was duly empaneled by the Court and, thereafter, the case proceeded to trial.

At the conclusion of the evidence, the Court submitted the following questions of fact to the jury and obtained the following answers (as reflected by the charge of the Court which is incorporated herein by reference):

QUESTION NO. 1

Did the negligence, if any, of the defendant, Brookshire Brothers, Inc., proximately cause the injury in question to the plaintiff, Wesley Smith?

ANSWER "yes" or "no."

ANSWER: Yes

QUESTION NO. 1A

Did the defendant, Brookshire Brothers, Inc., fail to provide the plaintiff, Wesley Smith, a reasonably safe work place which proximately caused the injury in question to the plaintiff Wesley Smith?

ANSWER "yes" or "no."

ANSWER: Yes

You are instructed as follows:

Every employer shall furnish and maintain employment and a place of employment which shall be reasonably safe and healthful for employees. Every employer shall install, maintain, and use such methods, processes, devices, and safeguards including methods of sanitation and hygiene, as are reasonably necessary to protect the life health, and safety of such employees, and shall do every other thing reasonably necessary to render safe such employment and place of employment.

QUESTION NO. 2

What sum of money, if paid now in cash, would fairly and reasonably compensate Wesley Smith for his injuries, if any, that resulted from the occurrence in question?

Consider the elements of damages listed below and none other. Consider each element separately. Do not include damages for one element in any other element. Do not include interest on any amount of damages you find.

Answer separately, in dollars and cents, for damages, if any.

a. Physical pain sustained in the past.
Answer **$1,000.00**

b. Physical pain that, in reasonable probability, Wesley Smith will suffer in the future.
Answer **$10,000.00**

c. Mental anguish sustained in the past.
Answer **$5,000.00**

d. Mental anguish that, in reasonable probability, Wesley Smith will suffer in the future.
Answer **$5,000.00**

e. Loss of earning capacity sustained in the past.
Answer **$ 0**

f. Loss of earning capacity that, in reasonable probability, Wesley Smith will sustain in the future.
Answer **$ 0**

g. Physical impairment sustained in the past.
Answer **$10,000.00**

h. Physical impairment that, in reasonable probability Wesley Smith will sustain in the future.
Answer **$5,000.00**

i. Medical care that, in reasonable probability Wesley Smith will incur in the future.
Answer **$10,000.00**

QUESTION NO. 3

Do you find by clear and convincing evidence that the harm to Wesley Smith resulted from malice?

"Clear and convincing evidence" means the measure or degree of proof that produces a firm belief or conviction of the truth of the allegations sought to be established.

"Malice" means an act or omission by Brookshire Brothers,

(i) which, when viewed objectively from the standpoint of Brookshire Brothers at the time of its occurrence, involved an extreme degree of risk, considering the probability and magnitude of the potential harm to others; and

(ii) of which Brookshire Brothers had actual, subjective awareness of the risk involved, but nevertheless proceeded with conscious indifference to the rights, safety, or welfare of others.

ANSWER "yes" or "no."

ANSWER: Yes

QUESTION NO. 4

What sum of money, if any, if paid now in cash, should be assessed against Brookshire Brothers and awarded to Wesley Smith as exemplary damages, if any, for the conduct found in response to Question No. 3.

"Exemplary damages" means an amount that you may in your discretion award as a penalty or by way of punishment.

Factors to consider in awarding exemplary damages, if any, are:

a. The nature of the wrong.

b. The character of the conduct involved.

c. The degree of culpability of Brookshire Brothers.

d. The situation and sensibilities of the parties concerned.

e. The extent to which, such conduct offends a public sense of justice and propriety.

f. The net worth of Brookshire Brothers.

Answer in dollars and cents, if any.

$250,000.00

Inasmuch as it appears to the Court that the verdict of the jury in the cause was for the Plaintiff Wesley Smith and against the Defendant Brookshire Brothers, Inc., it is therefore the ORDER of this Court that judgment be and the same is hereby rendered on the verdict in favor of the Plaintiff Wesley Smith and against Defendant Brookshire Brothers, Inc.

It is, therefore, **ORDERED, ADJUDGED,** and **DECREED** by this Court that the Plaintiff Wesley Smith is entitled to recover and shall recover of and from the Defendant Brookshire Brothers, Inc. the sum of $46,000 in actual compensatory damages and the sum of $200,000 in punitive damages.

It is **FURTHER ORDERED** that this judgment shall include (by stipulation of the parties and without waiver of any rights otherwise perfectible by appeal) prejudgment interest in the amount of $27,165.90; and postjudgment interest on all damages, whether actual or punitive, in the amount of ten percent (10%) per annum until paid.

It is **FURTHER ORDERED** that all costs of court expended or incurred in this cause are adjudged against Defendant Brookshire Brothers, Inc. All writs and processes for the enforcement and collection of this judgment or the costs of court may issue as necessary. All other relief not expressly granted herein is denied.

ENTERED this 26th day of February, 2002.

/s/ Robert H. Trap
JUDGE PRESIDING

APPENDIX C

[SEAL]

OFFICIAL NOTICE FROM
SUPREME COURT OF TEXAS
Post Office Box 12248
Austin, Texas 78711-2248

[POSTMARK]
Apr. 21, 2006

RE: Case No. 05-0264
COA #: 01-02-00677-CV
STYLE: WESLEY SMITH
v. BROOKSHIRE BROTHERS, INC.

Today the Supreme Court of Texas denied the motion for rehearing of the above-referenced petition for review.

MAIL TO:

MS. ALICE OLIVER-PARROT
BURROW & PARROTT L L P
1301 MCKINNEY SUITE 3500
HOUSTON TX 77010-3092

APPENDIX D

[LOGO] **HAZARDOUS MATERIALS RESPONSE TEAM** [LOGO]

Houston Fire Department
7825 Harrisburg
Houston, Texas 77012
Phone: (713) 928-6711 or
(713) 928-6152
FAX (713) 928-6160

February 21, 2006

Mr. Andrew Weber, Clerk
Supreme Court of Texas
The Supreme Court Building
201 W. 14th Street, Room 104
Austin, Texas 78701

Re: Cause No 05-0264; *Wesley Smith Brookshire Brothers, Inc.;* On Appeal from the 1st Court of Appeals, Houston, Texas.

Dear Mr. Weber:

Please file and submit this amicus letter brief to the Justices of the Supreme Court. My name is Blake White, and I am tendering this amicus submission for filing and distribution to the Justices of the Court in my capacity as the District Chief of the Houston Fire Department Hazardous Materials Response Team. Because the court of appeals' opinion will greatly impact the ability of emergency responders to treat victims of exposure to hazardous chemicals, and may well expose emergency responders to third-party liability when relying on Material Safety Data Sheets ("MSDS"), the Houston Fire Department has an interest in the correct development of the law with respect

to relying on the MSDS. I have not received any compensation for the preparation of this letter.

On May 13, 2004, the First Court of Appeals in Houston, Texas issued an opinion in the above-referenced case, holding that the MSDS, required of every manufacturer and importer of hazardous chemicals by federal and state law, cannot be relied upon as scientifically reliable and accurate evidence that the particular hazardous chemical named can generally cause the injury identified in the MSDS itself. I have been advised that this Court has declined to accept jurisdiction over this appeal to correct this erroneous and significant holding. It is critically and vitally important to emergency responders who treat victims of exposure to hazardous chemicals that the Court accept jurisdiction and correct the court of appeals' erroneous opinion. The court of appeals' holding that a MSDS is not scientifically reliable dramatically undermines established and approved education and practice of the Houston Fire Department, and if allowed to stand will result in a serious threat to public safety and health.

As members of the Hazardous Materials Response Team, we are educated and directed to rely upon the MSDS and must routinely rely on the information conveyed to perform our duties as emergency responders. OSHA mandates that each product used commercially which contains any hazardous ingredient must be accompanied by a Material Safety Data Sheet, or MSDS, upon entering a facility if there is one or more person employed at that location. The MSDS was initially designed to convey important safety hazard information and measures to protect persons who may come in contact with a product, including employees, fire fighters, etc. Current,

revised and obsolete Material Safety Data Sheets must be kept on file at a facility for 30 years or as long as the company is in business (whichever comes first).

The MSDS also serves to provide important environmental compliance information, including VOC content, hazardous chemical ingredients and their CAS numbers, product density, and vapor pressure. This information is required for hazardous air pollutant (HAP) and VOC emission calculations as well as other annual record keeping and reporting requirements, such as SARA 311 and 312 reporting.

With the promulgation of the Hazard Communication Standard (HCS) in 1983, the MSDS took a central role in a regulatory scheme designed to ensure that workers had essential safety and health information about the potentially hazardous substances in their workplace. But as a 1996 NACOSH report noted, Material Safety Data Sheets serve a number of other purposes besides HCS and various audiences beyond the general work force.

"The MSDS is used to provide information to emergency responders and local planning authorities and also serves as a primary data source for health professionals working with exposed individuals," the report noted.

The members of the Houston Fire Department's Hazardous Materials Response Team rely heavily upon the information within the product's MSDS. Because the product manufacturer is required to generate the MSDS, this information is very specific to the chemical in question as opposed to the broad and general information found in most references. Many times the Houston Fire Department has provided, at the request of the receiving hospital,

an MSDS for the product to which victims were exposed or contaminated with. The MSDS is also part of the documentation provided to medical facilities that subscribe to MicroMedex, the nations leading information source on chemicals and biological agents.

While there are other sources of technical data available, it is the experience of the Hazardous Material Response Team that the MSDS is by far one of the most useful pieces of product information readily available. While the court of appeals was concerned about the availability of epidemiological studies, it simply does not make sense to expose existing populations to chemicals that are already known toxins and are stipulated by their manufacturer to cause certain reactions. Indeed, the Federal Government requires manufacturers and importers of hazardous chemicals to prepare the MSDS and warning labels that have all the information regarding health and environmental hazards, analyze the chemistry of hazardous chemicals, assess the hazard, provide hazard warning information, and identify potential injury. The MSDS is required by federal law to be reliable and accurate. In the context of known hazardous chemicals, the MSDS may very well be the best available data to the emergency responder. If the court of appeals' opinion is not corrected, victims of exposure to chemicals will suffer and those emergency responders who are simply doing their job could be subject to third-party liability. It is, therefore, of vital importance to the public health and welfare that this Court accept jurisdiction over this appeal to correct

the court of appeals' erroneous holding about the scientific reliability of Materials Safety Data Sheets.

Sincerely,

/s/ Blake White
Blake White
District Chief
Houston Fire Department
Hazardous Materials Response Team

cc: Ms. Alice Oliver-Parrott
Burrow & Parrott, LLP
1301 McKinney, Ste. 3500
Houston, Texas 77010

Curtis W. Fenley, III
Warren T. McCollum
FENLEY & BATE, L.L.P.
P.O. Box 450
Lufkin, Texas 75902-0450

CERTIFICATE OF SERVICE

This is to certify that on February 21, 2006, a true and correct copy of the attached letter brief was served by regular mail on all counsel shown below.

Ms. Alice Oliver-Parrott
Ms. Teresa Arguindegui
Burrow & Parrott, L.L.P.
1301 McKinney, Ste. 3500
Houston, TX 77010

Mr. Curtis Fenley, III
Mr. Warren T. McCollum
Fenley & Bate, L.L.P.
P.O. Box 450
Lufkin, TX 75902-0450

/s/ Blake White
Blake White
District Chief
Houston Fire Department
Hazardous Materials
Response Team

APPENDIX E

The University of Texas Medical Branch

School of Medicine
Graduate School of Biomedical Sciences
School of Allied Health Sciences
School of Nursing
Marine Biomedical Institute
Institute for the Medical Humanities
UTMB Hospitals

Clinical Pharmacology-Toxicology
and
Texas Poison Center
University of Texas Medical Branch
301 University Blvd
Galveston
TX 77555-0631

tel: 409-772-9612
fax: 409-747-5205

(Filed Jan. 22, 2004)

Ms. Margie Thompson, Clerk
First Court of Appeals
1307 San Jacinto, 10th Floor
Houston
TX 77002

RE: No. 01-02-00677-CV; Brookshire Brothers, Inc. v. Wesley Smith;
In the First Court of Appeals,
Houston, Texas

Dear Ms. Thompson:

Please file and submit his amicus curiae letter brief to Chief Justice Radack and Justices Alcala and Higley. I am tendering to the Court as a Professor and Head of the Clinical Pharmacology-Toxicology Unit, at the University

of Texas Medical Branch, and the Medical Director of the Texas Poison Center – Houston/Galveston. My name is Dr. Wayne R. Snodgrass, M.D., Ph.D. This Court recently issued an opinion in the above-referenced case, holding that Material Safety Data Sheets ("MSDS"), required of every manufacturer and importer of hazardous chemicals by federal law, cannot be relied upon as scientifically reliable and accurate evidence that the particular hazardous chemical named can generally cause the injury identified in the MSDS itself. As physicians, we are educated and directed to rely upon MSDS in treating patients exposed to hazardous chemicals. The Court's recent opinion will impact greatly a physician's ability to treat patients and may well expose physician's to third-part liability when relying on MSDS. As a physician and educator, I have an interest in the correct development of the law with respect to relying on MSDS. I have not received any compensation for the preparation of this letter.

MSDS and warning labels may provide important information regarding the irritancy and other properties of chemicals. This information may include items such as known instances of asthma resulting from certain inhaled chemical vapors or fumes. To not utilize this information in many instances would be substandard for a physician in the course of evaluating and treating a patient.

Courts of law should be aware of the distinction between the Havner/Robinson rulings including an odds ratio of 2.0 or greater in epidemiologic studies versus that of causation in general. The Havner and other similar rulings apply when and if there is published peer-reviewed medical and scientific data in the form of an epidemiologic study to address the issue under consideration. However,

many times, as we know in medicine and science, such data may not exist. Thus, we physicians and scientists utilize the best data available to make determinations of causation as well as clinical diagnoses and selection of optimal therapies.

This approach of utilizing the best available data has been a tenet of medicine and science for more than 4 decades, and pre-dates the U.S. legal system's rulings of Havner and similar legal writings, which are limited to and focus only on a single odds ratio number from epidemiologic studies.

The most widely cited written document on this approach of utilizing the best available data is that of the Hill criteria. These criteria were published in 1965 (cited below) and include various considerations, not all of which may be available in a given instance, that serve as a guide to determination of causation. The Hill criteria include:

1. strength of the observed association,
2. consistency of the observed association,
3. specificity of the observed association,
4. temporal (time-course) relationship of the association,
5. presence of a dose-response relationship (this may not apply in cases of allergy),
6. biologic plausibility,
7. coherence of association (cause-effect interpretation should not conflict with known pathology of the disease or illness in question),
8. experimentation, when feasible or available, i.e., does preventive action based on some supposed association in fact prevent the outcome in question.

Thus, courts of law should realize that Havner and other similar writings apply only when sufficient data exist such that an epidemiologic study has been done and published. In many other instances, where such data is not available, medically and scientifically rational consideration of the best available data must be utilized and given appropriate consideration with approaches such as the Hill criteria. To not do so is to ignore and repudiate the most basic premises and foundations of medicine and science.

Sincerely,

/s/ Wayne R. Snodgrass

Wayne R. Snodgrass, M.D., Ph.D.
Professor and Head
Clinical Pharmacology-Toxicology Unit
Medical Directory, Texas Poison Center – Houston/Galveston
Diplomate, American Board of Pediatrics
American Board of Medical Toxicology
American Board of Clinical Pharmacology
Past President, American Academy of Clinical Toxicology
Chairman, Scientific Advisory Committee, American Association of Poison Control Centers
Chairman, Pediatric Expert Committee, United States Pharmacopeia
Chairman, Data Safety Monitoring Board, Pediatric Pharmacology Research Units, National Institutes of Health
member, Steering Committee, Obstetric-Fetal Pharmacology Research Units, National Institutes of Health
member, Council of Experts, United States Pharmacopeia
member, Non-Prescription Drug Advisory Committee, FDA

Hill AB: The environment and disease: association or causation? Proceedings Royal Society Medicine 1965; 58:295 – 300

cc: Ms. Alice Oliver-Parrott
Ms. Maria Teresa Arguindegui
Burrow & Parrott, LLP

Mr. Curtis W. Fenley, III
Mr. Warren T. McCollum
Fenley & Bate, LLP

APPENDIX F

[LOGO] **HAZARDOUS MATERIALS RESPONSE TEAM** [LOGO]

Houston Fire Department
7825 Harrisburg
Houston, Texas 77012
Phone: (713) 928-6711 or
(713) 928-6152
FAX (713) 928-6160

June 22, 2004

Ms. Margie Thompson, Clerk
First Court of Appeals
1307 San Jacinto, 10th Floor
Houston, Texas 77002

RE: No. 01-02-00677-CV;
Berkshire Brothers, Inc. v. Wesley Smith;
In the First Court of Appeals,
Houston, Texas

Dear Ms. Thompson:

Please file and submit this amicus curie [sic] letter brief to the Chief Justice Radack and Justices Alcala and Highley, tendered by the Houston Fire Department, Hazardous Materials Response Team. My name is Daniel G. Spell [sic], District Chief. This Court recently issued an opinion in the above referenced case, holding that Material Safety Data Sheets ("MSDS"), required of every manufacturer and importer of hazardous chemicals by federal law, cannot be relied upon as scientifically reliable and accurate evidence that the particular hazardous chemical named can generally cause the injury identified in the MSDS itself. As members of the Hazardous Materials Response Team, we are educated and directed to rely upon MSDS and must

routinely rely on the information conveyed to perform our duties as emergency responders. Because the Court's recent opinion will greatly impact the ability of emergency responders to treat victims of exposure to hazardous chemicals, and may well expose emergency responders to third-party liability when relying on MSDS, the Houston Fire Department has an interest in the correct development of the law with respect to relying on MSDS. As District Chief, I have not received any compensation for the preparation of this letter.

OSHA mandates that each product used commercially which contains any hazardous ingredient must be accompanied by a Material Safety Data Sheet or MSDS upon entering a facility if there is one or more people employed at that location. The MSDS was initially designed to convey important safety hazard information and measures to protect persons who may come in contact with a product, including employees, fire fighters, etc. Currently, revised, and obsolete MSDS must be kept on file at a facility for 30 years or as long as the company is in business (whichever comes first).

The MSDS also serves to provide important environmental compliance information, including VOC content, hazardous chemical ingredients and their CAS numbers, product density, and vapor pressure. This information is required for hazardous pollutant (HAPs) and VOC emission calculations, as well as other annual record keeping and reporting requirements, such as SARA 311 and 312 reporting.

With the promulgation of the hazard communication standard (HCS) in 1983, MSDSs took a central role in a regulatory scheme designed to ensure that workers had

essential safety and health information about the potentially hazardous substances in their workplace. But as a 1996 NACOSH report noted, MSDSs serve a number of other purposes besides HCS and various audiences beyond the general work force.

"The MSDS is used to provide information to emergency responders and local planning authorities and also serves as a primary data source for health professionals working with exposed individuals," the report noted.

The members of the Houston Fire Department's Hazardous Materials Response Team rely heavily upon the information within the product's MSDS. Because the product manufacturer is required to generate the MSDS, this information is very specific to the chemical in question as opposed to the broad and general information found in most references. Many times the HFD has provided, at the request of the receiving hospital, an MSDS for the product to which victims were exposed or contaminated with. The MSDS is also part of the documentation provided to medical facilities who subscribe to MicroMedex, the nations leading formation source on chemical and biological agents.

CERTIFICATE OF SERVICE

This is to certify that on July 06, 2004, a true and correct copy of the attached letter brief was served by regular mail on all counsel shown below:

Ms. Alice Oliver-Parrott
Ms. Teresa Arguindegui
Burrow & Parrott, L.L.P.
1301 McKinney, Suite 3500
Houston, Texas 77010

Mr. Curtis W. Fenley, III
Mr. Warren T. McCollum
Fenley & Bate, L.L.P.
P.O. Box 450
Lufkin, Texas 75902-0450

/s/ Daniel G. Snell
Daniel G. Snell
District Chief
Houston Fire Department
Hazardous Materials
Response Team

APPENDIX G

Our federal government views Material Safety Data Sheets as so reliable that the following are exemplary categories of persons *required by law* to use MSDS and to accept and acknowledge the scientific reliability of the information contained therein. Those listed below are also examples of those persons who will be adversely and negatively impacted by the court of appeals' decision that MSDS are not scientifically reliable. Additionally, the court of appeals' opinion conflicts with the following federal regulations:

Affected Party	Federal Citation	Federal Mandate
Manufacturer and importers of hazardous chemicals	29 CFR 1910.1200(g)(5)	Manufacturers and importers of hazardous chemicals are required to research the best, peer-reviewed scientific literature to form the MSDS.
Every Employer in the United States that has a hazardous chemical on site.	29 CFR 1910.1200(d)(1) 29 CFR 1910.1200(g)(8)	. . . "Employers are not required to evaluate chemicals unless they choose not to rely on the evaluation performed by the chemical manufacturer or importer for the chemical (the MSDS) to satisfy this requirement"

Affected Party	Federal Citation	Federal Mandate
	29 CFR 1910.1200, App. E	OSHA regulations tell employers "you can rely on the information received from your suppliers. You have no independent duty to analyze the chemical or evaluate the hazards of it."
Local emergency planning committees	42 U.S.C.A. § 11021(a)(1)(A)	MSDS shall be provided to the agency under the reporting requirements of the Emergency Planning and Community Right to Know Act
State Emergency Response Commissions	42 U.S.C.A. § 11021(a)(1)(A)	MSDS shall be provided to the agency under the reporting requirements of the Emergency Planning and Community Right to Know Act
First Responders and Fire Departments	42 U.S.C.A. § 11021(a)(1)(A)	MSDS shall be provided to the agency under the reporting requirements of

Affected Party	Federal Citation	Federal Mandate
		the Emergency Planning and Community Right to Know Act
Physicians and Nurses	42 U.S.C.A. § 11043(b)	MSDS shall be immediately provided to a nurse or physician when they make a request.
Manufacturers of Filled Fiber Optic Cables	7 C.F.R. § 1755.900	For initial acceptance, the manufacturer must submit . . . OSHA MSDS for all components.
Manufacturers of Outside Plant Housings and Serving Area Interface (SAI) Systems	C.F.R. § 1755.910	For initial acceptance the manufacturer shall . . . Provide OSHA MSDS for the product
Manufacturers of Products requiring special labeling	16 C.F.R. § 1500.14	Where appropriate, more detailed information that relates to chronic hazard(s), such as physical properties, decomposition products, detailed safety instructions, or disposal recommendations, shall be included in

Affected Party	Federal Citation	Federal Mandate
		supplemental documents, such as Material Safety Data Sheets, technical brochures, technical data sheets etc.
Manufacturers of products containing Natamycin	21 C.F.R. § 573.685	To assure the safe use of the additive, the label or labeling of the additive shall bear, in addition to other information required by the Federal Food, Drug, and Cosmetic Act, the following . . . A contact address and telephone number for reporting adverse reactions experienced by users, or to request a copy of the MSDS for natamycin.
Safety Managers	29 C.F.R. § 1910.119	The employer shall complete a compilation of written process safety information before conducting any process hazard

Affected Party	Federal Citation	Federal Mandate
		analysis required by the standard. Note: MSDS meeting the requirements of *29 CFR 1910.1200(g)* may be used to comply with this requirement
Testers of Concentrated aqueous ammonium hydroxide	29 C.F.R. § 1910.120, App. A	The person conducting the test shall review the MSDS for aqueous ammonia.
Analyzers of asbestos	29 C.F.R. § 1915.1001, App. K	Some of the solvents used, such as THF (tetrahydrofuran), are toxic and should only be handled in an appropriate fume hood and according to instructions given in the MSDS.
One who determines hazards	29 C.F.R. § 1917.28, App. B	Adequacy and reporting of data. The results of any studies which are designed and conducted according to established scientific principles, and which report statistically

Affected Party	Federal Citation	Federal Mandate
		significant conclusions regarding the health effects of a chemical, shall be a sufficient basis for a hazard determination and reported on any MSDS.
Chemical manufacturer, importer, distributor, or employer	29 C.F.R. § 1917.28, App. C	The following is a list of available data sources which the chemical manufacturer, importer, distributor, or employer may wish to consult to evaluate the hazards of chemicals they produce or import . . . Any information obtained from the supplier of the chemical, such as MSDS or product safety bulletins.
First Aid Training Programs	29 C.F.R. Pt. 1918, App. V	Trainees should be instructed in the acute effect of chemicals utilized in their plants, the location of chemical inventories, MSDS's chemical

Affected Party	Federal Citation	Federal Mandate
		emergency information, and antidote supplies.
Process Safety Management	29 C.F.R. § 1926.64, App. C	Complete and accurate written information concerning process chemicals, process technology, and process equipment is . . . a necessary resource to a variety of users including the team that will perform the process hazards analysis . . . Current MSDS information can be used to help meet this requirement.
Employers working with Asbestos	29 C.F.R. § 1926.1101, App. K	Some of the solvents used, such as THF (tetrahydrofuran), are toxic and should only be handled in an appropriate fume hood and according to instructions given in the MSDS
Employers working with cadmium	29 C.F.R. § 1926.1127	Prior to the performance of any construction work where employees

Affected Party	Federal Citation	Federal Mandate
		may be potentially exposed to cadmium, the employer shall establish the applicability of this standard by determining whether cadmium is present in the workplace and whether there is the possibility that employee exposures will be at or above the action level. Investigation shall include a review of relevant plans, past reports, MSDS and other available records, and consultations with the property owner and discussions with appropriate individuals and agencies
OSHA requirements	29 C.F.R. § 1960.34	Agencies . . . and suppliers . . . shall establish and maintain a product safety program which . . . Includes preparation of FEDSTD 313,

Affected Party	Federal Citation	Federal Mandate
		MSDS, involving all interested agencies in review to keep the standard current. MSDS provided by agencies or contractors shall meet the requirements of FEDSTD 313 and be furnished to DOD for filing and distribution.
Creators of HazCom program	30 C.F.R. § 47.32	The HazCom program must include the following . . . MSDSs.
Mine Safety and Health Administration, Department of Labor	30 C.F.R. § 47.51	Operators must have an MSDS for each hazardous chemical which they produce or use.
Mine Safety and Health Administration, Department of Labor	30 C.F.R. § 47.73	For a hazardous chemical produced at the mine, the operator must provide customers, upon request, with the chemical's label or a copy of the label information, and the chemical's MSDS.

Affected Party	Federal Citation	Federal Mandate
Manufacturers of Filled Fiber Optic Cables	7 C.F.R. § 1755.900	For initial acceptance, the manufacturer must submit . . . OSHA MSDS for all components.
Manufacturers of Outside Plant Housings and Serving Area Interface (SAI) Systems	C.F.R. § 1755.910	For initial acceptance the manufacturer shall . . . Provide OSHA MSDS for the product
Manufacturers of Products requiring special labeling	16 C.F.R. § 1500.14	Where appropriate, more detailed information that relates to chronic hazard(s), such as physical properties, decomposition products, detailed safety instructions, or disposal recommendations, shall be included in supplemental documents, such as Material Safety Data Sheets, technical brochures, technical data sheets etc.
Manufacturers of products containing	21 C.F.R. § 573.685	To assure the safe use of the additive, the label or labeling

Affected Party	Federal Citation	Federal Mandate
Natamycin		of the additive shall bear, in addition to other information required by the Federal Food, Drug, and Cosmetic Act, the following . . . A contact address and telephone number for reporting adverse reactions experienced by users, or to request a copy of the MSDS for natamycin.
Safety Managers	29 C.F.R. § 1910.119	The employer shall complete a compilation of written process safety information before conducting any process hazard analysis required by the standard. Note: MSDS meeting the requirements of *29 CFR 1910.1200(g)* may be used to comply with this requirement
Testers of Concentrated aqueous ammonium hydroxide	29 C.F.R. § 1910.120, App. A	The person conducting the test shall review the MSDS for aqueous ammonia.

Affected Party	Federal Citation	Federal Mandate
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One who determines hazards	29 C.F.R. § 1917.28, App. B	Adequacy and reporting of data. The results of any studies which are designed and conducted according to established scientific principles, and which report statistically significant conclusions regarding the health effects of a chemical, shall be a sufficient basis for a hazard determination and reported on any MSDS.
Chemical manufacturer, importer, distributor, or employer	29 C.F.R. § 1917.28, App. C	The following is a list of available data sources which the chemical manufacturer,

Affected Party	Federal Citation	Federal Mandate
		importer, distributor, or employer may wish to consult to evaluate the hazards of chemicals they produce or import . . . Any information obtained from the supplier of the chemical, such as MSDS or product safety bulletins.
First Aid Training Programs	29 C.F.R. Pt. 1918, App. V	Trainees should be instructed in the acute effect of chemicals utilized in their plants, the location of chemical inventories, MSDS's chemical emergency information, and antidote supplies.
Process Safety Management	29 C.F.R. § 1926.64, App. C	Complete and accurate written information concerning process chemicals, process technology, and process equipment is . . . a necessary resource to a variety of users including the team

Affected Party	Federal Citation	Federal Mandate
		that will perform the process hazards analysis . . . Current MSDS information can be used to help meet this requirement.
Employers working with Asbestos	29 C.F.R. § 1926.1101, App. K	Some of the solvents used, such as THF (tetrahydrofuran), are toxic and should only be handled in an appropriate fume hood and according to instructions given in the MSDS
Employers working with cadmium	29 C.F.R. § 1926.1127	Prior to the performance of any construction work where employees may be potentially exposed to cadmium, the employer shall establish the applicability of this standard by determining whether cadmium is present in the workplace and whether there is the possibility that employee exposures

Affected Party	Federal Citation	Federal Mandate
		will be at or above the action level. Investigation shall include a review of relevant plans, past reports, MSDS and other available records, and consultations with the property owner and discussions with appropriate individuals and agencies
OSHA requirements	29 C.F.R. § 1960.34	Agencies . . . and suppliers . . . shall establish and maintain a product safety program which . . . Includes preparation of FEDSTD 313, MSDS, involving all interested agencies in review to keep the standard current. MSDS provided by agencies or contractors shall meet the requirements of FEDSTD 313 and be furnished to DOD for filing and distribution.

Affected Party	Federal Citation	Federal Mandate
Creators of HazCom program	30 C.F.R. § 47.32	The HazCom program must include the following . . . MSDSs.
Mine Safety and Health Administration, Department of Labor	30 C.F.R. § 47.51	Operators must have an MSDS for each hazardous chemical which they produce or use.
Mine Safety and Health Administration, Department of Labor	30 C.F.R. § 47.73	For a hazardous chemical produced at the mine, the operator must provide customers, upon request, with the chemical's label or a copy of the label information, and the chemical's MSDS.
Manufacturers of Filled Fiber Optic Cables	7 C.F.R. § 1755.900	For initial acceptance, the manufacturer must submit . . . OSHA MSDS for all components.
Manufacturers of Outside Plant Housings and Serving Area Interface (SAI) Systems	C.F.R. § 1755.910	For initial acceptance the manufacturer shall . . . Provide OSHA MSDS for the product

Affected Party	Federal Citation	Federal Mandate
Manufacturers of Products requiring special labeling	16 C.F.R. § 1500.14	Where appropriate, more detailed information that relates to chronic hazard(s), such as physical properties, decomposition products, detailed safety instructions, or disposal recommendations, shall be included in supplemental documents, such as Material Safety Data Sheets, technical brochures, technical data sheets etc.
Manufacturer of Cleaning Solvent	40 C.F.R. § 63.750	Vapor pressure determination. The composite vapor pressure of hand-wipe cleaning solvents used in a cleaning operation subject to this subpart shall be determined as follows: (1) For single-component hand-wipe cleaning solvents, the vapor pressure shall be

Affected Party	Federal Citation	Federal Mandate
		determined using MSDS or other manufacturer's data, standard engineering reference texts, or other equivalent methods
Vendors to Federal Government	41 C.F.R. § 101-42.202	Federal Acquisition Regulation require that manufacturers identify and document potential hazards on material safety data sheets (MSDS's) as part of the acquisition process
Transporters of hazardous material for the federal government between agencies	41 C.F.R. § 101-42.207	Excess hazardous materials may be transferred among Federal agencies under § 101-43.309-5, except that the Standard Form shall contain a complete description of the actual or potential hazard associated with the handling, storage, or use of the item. Such description shall consist either

Affected Party	Federal Citation	Federal Mandate
		of a written narrative, complying with the requirements of 29 CFR 1910.1200, in block 13c or as an addendum, or an MSDS.
Holding agencies for Federal Property that is hazardous	41 C.F.R. § 101-42.302(a)	Holding agencies shall be responsible for the identification and reporting of hazardous materials as set forth in §§ 101- 42.202 and 101-42.203.
State Agencies transferring property with the Federal Government	41 C.F.R. § 101-42.302(b)	State agencies shall prepare Standard Form (SF) 123, Transfer Order Surplus Personal Property, under § 101-44.4901-123-1. A full description of the actual or potential hazard associated with handling, storage, or use of the item must be made available by providing an MSDS.
Department of Homeland	46 C.F.R.	A material safety data sheet (MSDS)

Affected Party	Federal Citation	Federal Mandate
Security employees that handle Benzene	§ 197.565(a)	addressing benzene must be made available to all persons involved in the benzene operation.
Testers of vehicle emissions	40 C.F.R. § 79.61(8)(i)	It is mandatory that the upper explosive limit (UEL) and lower explosive limit (LEL) for the fuel and/or fuel additive(s) that are being tested be determined. These limits can be found in the material safety data sheets (MSDS) for each substance and in various reference texts.
Generators of the EPS USFRS XL Project	40 C.F.R. § 266.402(c)	USFRS will provide the person with a copy of the USFRS XL waste MSDS, FPA and training module
Debris treaters for hazardous debris	40 C.F.R. § 268.45	Debris treaters should refer to the safety precautions specified in Material Safety Data Sheets

Affected Party	Federal Citation	Federal Mandate
Any person submitting a written request under the EPA Community right-to-know program	40 C.F.R. § 370.30(a)(2)	Any person may obtain an MSDS with respect to a specific facility by submitting a written request to the committee.
All personnel involved in the chemical analysis of water and wastewater under Clean Water Act; the Resource Conservation and Recovery Act; the Comprehensive Environmental Response, Compensation, and Liability Act	40 C.F.R. Pt. 430, App. A	A reference file of material safety data sheets (MSDSs) should be made available to all personnel involved in the chemical analysis
All personnel involved in the chemical analysis of NAF for crude oil contamination	40 C.F.R. Pt. 435, Subpt. A, App. 5	A reference file of material safety data sheets (MSDSs) shall be available to all personnel involved in these analyses.
Those determining the concentration of Hazardous Air Pollution	40 C.F.R. § 63.1292	The concentration . . . be determined using . . . material safety data sheets.

Affected Party	Federal Citation	Federal Mandate
Chemists monitoring vapor-phase mercury (Hg) emissions in combustion flue gas streams, using a sorbent trap monitoring system	40 C.F.R. Pt. 75, App. K	Chemists should refer to the Material Safety Data Sheet (MSDS) for each chemical used.
All personnel on a deepwater port	33 C.F.R. § 150.625	Each deepwater port must have a hazard communication program (HCP) available for the training of, and review by, all personnel on the deepwater port. The program must be in writing and describe or include . . . A material safety data sheet (MSDS) for the material.
Oil carriers	33 C.F.R. § 155.1035(j)(10)	Appendices for vessel-specific information . . . must include for each vessel covered by the plan the following information . . . Location of information on the name, description,

Affected Party	Federal Citation	Federal Mandate
		physical and chemical characteristics, health and safety hazards, and spill and firefighting procedures for the oil cargo aboard the vessel. A material safety data sheet meeting the requirements of 29 CFR 1910.1200, cargo information required by 33 CFR 154.310, or equivalent will meet this requirement.
All facilities that could reasonably be expected to cause significant and substantial harm to the environment	33 C.F.R. § 154.1035	Appendices for the response plan . . . must include for each vessel covered by the plan the following information . . . Location of information on the name, description, physical and chemical characteristics, health and safety hazards, and spill and firefighting procedures for the oil cargo aboard the

Affected Party	Federal Citation	Federal Mandate
		vessel. A material safety data sheet meeting the requirements of 29 CFR 1910.1200, cargo information required by 33 CFR 154.310, or equivalent will meet this requirement.

(2)

No. 06-109

Supreme Court, U.S.
FILED
AUG 22 2006
OFFICE OF THE CLERK

In The
Supreme Court of the United States

WESLEY SMITH,

Petitioner,

vs.

BROOKSHIRE BROTHERS, INC.,

Respondent.

On Petition For Writ Of Certiorari To The First District Court Of Appeals, Houston, Texas

BROOKSHIRE BROTHERS' RESPONSE TO WESLEY SMITH'S PETITION FOR WRIT OF CERTIORARI

CURTIS (CURT) W. FENLEY III
Counsel of Record
WARREN T. MCCOLLUM
Attorney for Respondent
FENLEY & BATE, LLP
224 E. Lufkin Ave.
Lufkin, Texas 75901
936-634-3346

COCKLE LAW BRIEF PRINTING CO. (800) 225-6964
OR CALL COLLECT (402) 342-2831

QUESTIONS PRESENTED

1. Whether the State of Texas First District Court of Appeals' Opinion that Material Data Safety Sheets (MSDS) are not a reliable source, by themselves, to establish legal causation in a negligence action is an issue limited to the jurisprudence of the State of Texas?

2. Whether the Petitioner has met his burden of establishing Federal Question Jurisdiction?

3. Whether the State of Texas First District Court of Appeals' determination that Dr. Gary Friedman's testimony was unreliable is based solely on the unreliability of MSDS?

4. Whether the State of Texas First District Court of Appeals' Opinion that MSDS are not sufficient to establish general causation in a civil chemical exposure case is significant Federal issue?

5. Whether MSDS are reliable for use in proving general legal causation in a civil chemical exposure case?

6. Whether there is a sufficient record for the Supreme Court to determine if the specific MSDS relied upon by Dr. Gary Friedman is reliable scientific evidence?

CORPORATE DISCLOSURE STATEMENT

Brookshire Brothers, Inc. no longer exists. The successor entity is Brookshire Brothers, Ltd. which is a limited partnership between Brookshire Brothers Management, Inc. (a Texas Corporation) and Brookshire Brothers Investment, Inc. (a Nevada Corporation). Neither is a publicly traded company.

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STATEMENT OF THE CASE

Brookshire Brothers is dissatisfied with Wesley Smith's statement of the case and, as such, presents the following for the court's consideration.

Wesley Smith brought suit against Brookshire Brothers for injuries he claims to have suffered from exposure to household cleaners. Brookshire Brothers is a grocery company with locations in Texas and Louisiana. Brookshire Brothers has chosen not to subscribe to the Texas Workers' Compensation System. Smith was employed at Brookshire Brothers' Corrigan, Texas location as a part of the night cleaning crew. On September 12, 1995, he was asked to clean the walls of the bakery. Smith claims that he was given multiple household cleaners which he used to clean the bakery walls. Smith alleges that the mixture of cleaners caused irritation to his eyes, throat and mouth. According to Smith, this irritation led to the development of reactive airways dysfunction syndrome (RADS). Smith has never been able to clearly identify the amount of the household cleaners he used and the duration of his alleged exposure to the chemicals.

Wesley Smith sued Brookshire Brothers on September 9, 1997. Smith asserted Brookshire Brothers was negligent in failing to provide a safe workplace and that Brookshire Brothers' conduct was grossly negligent, intentional and/or consciously indifferent. Smith sought damages for his alleged condition and punitive damages.

At trial, Wesley Smith's counsel read the deposition testimony of Dr. Gary Friedman. Dr. Friedman relied almost solely upon MSDS for some of the household cleaners allegedly employed by Wesley Smith. For the

other cleaners, which he could not locate MSDS, he relied upon the manufacturer's product label.

The First District Court of Appeals, citing to *Moore v. Ashland Chemical, Inc.*, 151 F.3d 269, 278 (5th Cir. 1998) and *Coastal Tankships, U.S.A., Inc. v. Anderson*, 87 S.W.3d 591, 611 (Tex. App. – Houston [1st Dist.], 2002), correctly found that Dr. Friedman's reliance on MSDS, without additional scientific support, was unreliable and therefore, constituted no evidence. Without Dr. Friedman's testimony, Wesley Smith had no evidence of the causal link between his alleged exposure to the household cleaners and his alleged medical condition, Reactive Airways Dysfunction Syndrome (RADS).

SUMMARY OF THE ARGUMENT

The decision of the First Court of Appeals from Houston, Texas is a matter of Texas Jurisprudence. The State of Texas has held that reliance on scientific studies whose foundation is experiments conducted on animals or exposure of animals to certain substances is inherently unreliable. This holding is particular to the State of Texas and is not a federal issue.

The Petitioner, Wesley Smith, fails to establish a real conflict between the First District Court of Appeals' opinion in *Brookshire Brothers, Inc. v. Smith* and any Federal Circuit Courts of the United States or any State Court of last resort. Likewise, he has failed to establish the First District Court of Appeals' opinion conflicts with a relevant decision of the United States Supreme Court or that the First District Court of Appeals' opinion decided an important question of Federal law.

The First District Court of Appeals' decision was based on more than MSDS were unreliable scientific evidence. In fact, Dr. Friedman also relied upon medical records, the patient's history and manufacturer labels, all deemed to be unreliable, in combination with the MSDS and by themselves, to support Dr. Freidman's causation opinion.

The authorities and the underlying regulations establish that MSDS are not scientifically reliable. The reliance on a single animal study, the medical community's hesitancy to rely on MSDS due to the manufacturer/ author's history of providing only part of the data or inaccurate data, does not make MSDS a reliable basis for a scientific opinion to support general causation. Finally, the underlying record on appeal does not furnish sufficient information upon which a court could determine the tests performed by the MSDS author or even what the MSDS at issue says.

For these reasons, the Honorable United State Supreme Court should deny the Petition for Writ of Certiorari.

REASONS THE PETITION SHOULD BE DENIED

I. The Highest Court of the State of Texas declined to address the issue

On January 27, 2006 the Texas Supreme Court *denied* the Petitioner's Petition for Review. (Appendix 1, App. 1). The Texas Supreme Court later denied a Motion for Rehearing. (See Petitioner's Petition App. C). The Texas Rules of Appellate Procedure provide that:

> "'Denied.' If the Supreme Court is not satisfied that the opinion of the court of appeals has correctly stated the law in all respects, but determines that the petition presents no error that requires reversal or that is of such importance to the jurisprudence of the state as to require correction, the Court will deny the petition with the notation 'Denied'" Tex. R. App. P. 56.1(b)(1).

A petition for review which is *refused* is equivalent to an opinion issued by the Texas Supreme Court and possesses the same precedential value as an opinion issued by the Texas Supreme Court. The disposition by the Texas Supreme Court of the Petitioner's Petition for Review of the First District Court of Appeals' May 13, 2004 opinion establishes that the opinion of the First District Court of Appeals lack any significant merit within the jurisprudence of the State of Texas. The reason is that Texas law already recognizes that epidemiological studies, which Dr. Gary Friedman failed to cite, based upon research conducted on animals is unreliable. *Merrell Dow Phamaceuticals, Inc. v. Havner*, 953 S.W.2d 706, 728-729 (Tex. 1997) and *Minnesota Mining & Manufacturing Co. v. Atterbury*, 978 S.W.2d 183, 199 (Tex. App. – Texarkana, 1998). The Occupational Safety & Health Administration (OSHA) requires chemical manufacturers to make a health hazard determination and issue a MSDS based upon this determination. 29 C.F.R. § 1910.1200(d)(2). The regulations give the manufacturers guidance as to what types of studies may be examined and used in making the health hazard determination in Appendix A and B which are attached to the regulations. (Appendix 2, App. 4-6 & Appendix 3, App. 9-10).[1] In determining whether a product is a carcinogen,

[1] Both Appendix 2 & 3 were attached as Appendix G1 and G2 to Smith's Petition for Review to the Texas Supreme Court.

corrosive, highly toxic, irritant, or toxic, a chemical manufacturer is permitted to examine and **base** this determination on a single *animal* study. (Appendix 2, App. 5). Texas law has specifically held that reliance upon animal studies is not sufficient to establish legal causation in a court of law. Texas also requires the epidemiological studies presented in support of a general causation opinion demonstrate that exposure to the chemical should double the risk of contracting the medical condition at issue. *Merrell Dow Phamaceuticals, Inc. v. Havner*, 953 S.W.2d 706, 717-718 (Tex. 1997). Federal Regulations pertaining to MSDS do not specify any ratio of risk. These holdings and requirement are particular to Texas Jurisprudence.

Even though the First District Court of Appeals' decision does touch on federally required MSDS, this honorable court should exercise its discretion and deny the petition for writ of certiorari because this is a matter that falls within the province of Texas Jurisprudence. See *Maryland v. Baltimore Radio Show, Inc.*, 338 U.S. 912, 70 S. Ct. 252, 94 L. Ed. 562 (1950) (Court permitted to deny review of State court proceeding even though it involved issue of federal law).

II. The Petitioner has failed to establish a conflict with any reported opinions

Since the Texas Supreme Court denied the petition for review, Smith cannot meet Supreme Court Rule 10(b) requirement that the "state court of last resort" decide an important issue which conflicts with Federal Circuit Court of Appeals' decisions or other State Courts' of last resort

opinions. As such, Smith's claim of jurisdiction under Supreme Court Rule 10(b) fails.

However, Brookshire Brothers still believes it is important to show this court that the opinions cited by Smith as conflicting with the First District Court of Appeals' opinion are factually distinguishable. First, the First District Court of Appeals' opinion does not possess the broad holding that Petitioner claims. (Petitioner's Petition, Pg. 7). The opinion does not hold that MSDS are not reliable scientific evidence. The opinion merely states that *MSDS by themselves* are not reliable scientific evidence. (See Petitioner's Petition App. A11-A14). The Petitioner ignores footnote seven of the opinion when he claims that the First District Court of Appeals' opinion conflicts with *Curtis v. M&S Petroleum*, 174 F.3d 661 (5th Cir. 1999). The First District Court of Appeals references petitioner's reliance on the opinion in his motion for rehearing and distinguishes *Curtis* from the case at hand. In particular, the expert in *Curtis* was relying upon other scientific studies establishing a causal link between the chemical and the disease suffered by the plaintiffs. *Ibid.*, 669-670. Here, the First District Court of Appeals correctly determined that Dr. Friedman was not relying upon any scientific studies, but relied solely on the MSDS and manufacturer labels. Clearly, there is no conflict between the opinion in *Curtis* and the First District Court of Appeals' opinion.

The Petitioner also cites to *Westerberry v. Gislaved Gummi AB*, 178 F.3d 257 (4th Cir. 1999) as an opinion which conflicts with the First District Court of Appeals opinion. First, the *Westerberry* court never held that MSDS are reliable scientific evidence by themselves. The *Westerberry* Court stated that MSDS provided by the defendant,

the defendant's own opening argument and the defendant's expert's testimony established that exposure to talc in sufficient quantities could cause irritation to mucous membranes. *Ibid.*, 264-265. In fact, the defendant in *Westerberry* took the position at trial that talc could cause irritation to mucous membranes but that the plaintiff had not been exposed to a sufficient quantity. *Ibid.*, 265 n. 2 Here, the First District Court of Appeals did not face a situation where it was conceded by the Defendant at trial (Respondent herein) that exposure to the chemicals at issue would cause RADS. As such, there is no conflict between the First District Court of Appeals opinion and *Westerberry*.

The Petitioner also cites to *McCullock v. H.B. Fuller Co.*, 61 F.3d 1038 (2nd Cir. 1995) as a case that holds contrary to the First District Court of Appeals. First, as stated above, the First District Court of Appeals found that MSDS are not reliable scientific evidence of general causation by themselves. Likewise, *McCullock* did not hold that MSDS are reliable scientific evidence by themselves. The physician in *McCullock* relied upon the plaintiff's medical records, her medical history, pathological studies and reference to scientific and medical treatises in combination with MSDS was a sufficiently reliable method. Dr. Friedman did not rely on any pathological studies or any medical or scientific treatises in coming to his opinions. Contrary to the Petitioner's representation, McCullock does not conflict with the First District Court of Appeals opinion.

"Certiorari is only granted 'in cases involving principles the settlement of which is of importance to the public as distinguished from that of the parties, and in cases where there is a real and embarrassing conflict of opinion

and authority among the circuit courts of appeal.'" *National Labor Relations Board v. Pittsburgh Steamship Co.*, 340 U.S. 498, 502, 71 S. Ct. 453, 456, 95 L. Ed. 479, 482 (1951) (citing *Layne & Bowler Corp. v. Western Well Works*, 261 U.S. 387, 393, 43 S. Ct. 422, 67 L. Ed. 712 (1923)). There is no "real and embarrassing" conflict between the First District Court of Appeals' decision in *Brookshire Brothers, Inc. v. Smith* and the three federal circuit courts of appeal discussed above and cited to by Smith.

III. The reliance on MSDS was not the sole reason Dr. Friedman's testimony was unreliable.

The question presented before the court, whether MSDS are reliable scientific evidence upon which to base a causation opinion, would not, if it was determined that MSDS are reliable, lead to a determination that Dr. Gary Friedman's testimony was reliable. The First District Court of Appeals found Dr. Friedman's opinion to be unreliable for the following reasons:

(1) Reliance on the commercial cleaner's labels;

(2) Reliance on the patient's medical records and history of the event;

(3) Failure to rely upon any peer review articles;

(4) And failure to cite one epidemiological study in support of his opinion. (Smith's Petition, Appendix A, A9-A14).

In fact the First District Court of Appeals never asserts that MSDS are unreliable scientific evidence. The court merely stated that MSDS, "standing alone" do not provide

"the type of specific detailed showing of scientific reliability required to accord evidentiary value to an expert's opinion."-(Smith's Petition, Appendix A, A11). Stated differently, MSDS, by themselves, are not sufficient scientific evidence upon which to base a general causation opinion in a chemical exposure case. In the underlying appeal, Smith attempted to use *Curtis v. M&S Petroleum*, 174 F.3d 661 (5th Cir. 1999) as support for his proposition that MSDS are reliable scientific evidence. However, the First District Court of Appeals was able to appreciate the distinction between the scientific materials relied upon by Dr. Friedman and those relied upon by the *Curtis* expert. Dr. Frank Stevens relied on MSDS *and:*

(1) Epidemiological Studies published by the U.S. Department of Health and Human Services;

(2) The U.S. Supreme Court's Opinion in *Industrial Union v. American Petrol. Inst.*, 448 U.S. 607, 100 S. Ct. 2844, 65 L. Ed. 2d 1010 (1980) which discusses multiple studies on the effects of exposure to benzene;

(3) And the OSHA standard on benzene. *Ibid.*, 669-670.

The First District Court of Appeals does not hold that MSDS are unreliable scientific evidence as alleged by Smith. The MSDS at issue did not provide the data necessary to determine if they were reliable. Specifically, there was no evidence of the tests upon which the MSDS based its findings that exposure to the chemicals could cause RADS. (Smith's Petition Appendix A, A11-A12). Smith fails to appreciate the fact that if Dr. Friedman had relied upon more than just the MSDS, if Dr. Friedman had scientific

studies which supported his conclusions, then his testimony and conclusions could have met reliability standards under Texas law.

IV. There is no significant public outcry about the First District Court of Appeals' opinion.

Courts have held well before the First District Court of Appeals' May, 2004 opinion that MSDS, by themselves, are not reliable scientific evidence. In 1998, the Fifth Circuit Court of Appeals, a court whose opinions carry significant precedential value in federal courts in the states of Texas, Louisiana, and Mississippi, held that MSDS, by themselves, were not sufficient scientific material upon which to base a causation opinion. *Moore v. Ashland Chemical, Inc.*, 151 F.3d 269, 278 (5th Cir. 1998) and *Coastal Tankships, U.S.A., Inc. v. Anderson*, 87 S.W.3d 591, 611 (Tex. App. – Houston [1st Dist.], 2002) n. 32. There was no documented public outcry over the Fifth Circuit's opinion in the three states it affected. Smith neglects to advise the court that this is not the first time that the First District Court of Appeals has ruled that MSDS are not reliable scientific basis by themselves. In *Coastal Tankships, U.S.A., Inc. v. Anderson*, 87 S.W.3d 591, 611 (Tex. App. – Houston [1st Dist.], 2002), the First District Court of Appeals, in an en banc opinion, found that MSDS, in combination with other unreliable data, could not be used to establish causation. Again, there was no public outcry about the First District Court of Appeals' opinion. Now, a panel of three justices from the First District Court of Appeals issues an opinion, which comes to the same conclusion as *Coastal Tankships* and there is suddenly an outcry, admittedly limited to Houston, Texas. One has to ask where was the concern of Dr. Wayne

Snodgrass and the Houston Hazardous Materials Response Team in 1998 and 2002 when the Fifth Circuit Court of Appeals and the First District Court of Appeals authored opinions with the exact same conclusion as the three judge panel of *Brookshire Brothers, Inc. v. Smith*. It is also strange that the public outcry is limited to Houston, Texas. (Smith's Petition Appendix D, E & F). Not only is there no public outcry from outside Texas, but the concern is limited to Houston, no amicus briefs from Dallas, Austin or San Antonio. The reason is clear. The First District Court of Appeals' opinion has little impact on anyone within the relevant medical community.

The same person who forwarded the First District Court of Appeals opinion to Dr. Snodgrass and the Houston Hazardous Materials Team would have also done well to have educated them as to the difference between applying MSDS in Dr. Snodgrass' and Emergency Medical fields and application in establishing causation in a court of law. Smith, Dr. Snodgrass and the Houston Hazardous Materials Team fail to understand, after exhaustive briefing of this subject at the First District Court of Appeal and the Texas Supreme Court, the purpose of the legal system. "Our legal system requires that claimants prove their cases by a preponderance of the evidence. In keeping with this sound proposition at the heart of our jurisprudence, the law should not be hasty to impose liability when scientifically reliable evidence is unavailable." *Merrell Dow Pharmaceuticals, Inc. v. Havner*, 953 S.W.2d 706, 728 (Tex. 1995). "[T]he law must balance the need to compensate those who have been injured by the wrongful actions of another with the concept deeply imbedded in our jurisprudence that a defendant cannot be found liable for an

injury unless the preponderance of the evidence supports cause in fact." *Ibid.*, 718.

V. MSDS are not reliable scientific evidence when solely used to support a causation opinion.

Courts commonly refer to two types of causation in toxic tort cases, general and specific causation. *Minnesota Mining and Manufacturing Company v. Atterbury*, 978 S.W.2d 183, 199 (Tex. App. – Texarkana, 1998) and *Neal v. Dow Agrosciences LLC*, 74 S.W.3d 468, 472 (Tex. App. – Dallas, 2002). "General causation is whether a substance is capable of causing a particular injury or condition in the general population, while specific causation is whether a substance caused a particular individual's injury." *Merrell Dow Pharmaceuticals, Inc. v. Havner*, 953 S.W.2d 706, 714 & 715 (Tex. 1995). The First District Court of Appeals found that Smith did not have evidence of general causation because Dr. Friedman's opinion was not reliable. The *Curtis* opinion stands for the proposition that MSDS may be combined with scientific studies to form the basis of a general causation opinion. However, Smith seeks a ruling from this court that MSDS, simply because they are required by Occupational Safety & Health Administration (OSHA), are sufficient by themselves to support a general causation opinion. As the court will appreciate, the purpose and less than stringent requirements of MSDS make such a holding unwise.

MSDS are prepared by chemical manufacturers, importers and employers. 29 C.F.R. § 1910.1200(d)(2). These groups are required to examine scientific data and make a hazard determination of the chemicals included in the product. As can be expected, Federal Regulations are

not always followed. "The practitioner may find when contacting the manufacturer that the actual ingredients that are causing the patient's symptoms may not have been listed on the MSDS because they either constituted less than 1% of the product or the information on the chemicals was not disclosed because of trade secrets." (Appendix 4, App. 15).[2] Not surprisingly, the MSDS author has not always prepared a complete analysis. An understanding of the bias and interests of the author leads to the clear conclusion that MSDS are not a reliable source of information for making scientific determinations of causation.

OSHA requires chemical manufacturers to make a health hazard determination and issue a MSDS based upon this determination. 29 C.F.R. § 1910.1200(d)(2). The regulations give the manufacturers guidance as to what types of studies may be examined and used in making the health hazard determination in Appendix A and B which are attached to the regulations. (Appendix 2, App. 4-6 & Appendix 3, App. 9-10). In determining whether a product is a carcinogen, corrosive, highly toxic, irritant, or toxic, a chemical manufacturer is permitted to examine and **base** this determination on a single *animal* study. (Appendix 2, App. 4-6 & Appendix 3, App. 9-10). The courts of the State of Texas are very skeptical of animal studies. "[T]hus, it would be fair to say that animal studies, standing alone, are not likely to support a finding of causation." *Minnesota Mining & Manufacturing Co. v. Atterbury*, 978 S.W.2d 183, 199 (Tex. App. – Texarkana, 1998).

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[2] Appendix 4 was attached as Appendix G6 to Smith's Petition to the Texas Supreme Court.

Here, OSHA has permitted chemical manufacturers to make hazard determinations, which form the content of MSDS, based solely upon studies performed on rats and rabbits. The Texas Supreme Court in *Merrell Dow Pharmaceuticals, Inc. v. Havner*, 953 S.W.2d 706 (Tex. 1997) found that proper scientific methodology would not rely solely on studies based upon animals, including rats and rabbits, as conclusive evidence that a substance is harmful to humans. *Ibid.*, 728-729. The Fifth Circuit made clear that a lack of knowledge of the tests conducted by the MSDS author substantially limits the value of an opinion based upon that MSDS. *Moore v. Ashland Chemical, Inc.*, 151 F.3d 269, 278 (5th Cir. 1998). Here, Smith has not provided any evidence of what studies were relied on in authoring the applicable MSDS.

In a letter from the Assistant Secretary of OSHA, Joseph A. Dear to Senator Daniel R. Inouye dated January 18, 1995, Mr. Dear sets forth the purpose of MSDS. Notably absent from these purposes is to support legal theories of causation in a court of law. (Appendix 5, App. 20-21).[3] There is nothing wrong with the use of animal studies in the context of MSDS when one understands that the MSDS' purpose is to warn employees of the *potential hazards of chemicals*. 29 C.F.R. § 1910.1200(a)(2). The purpose of the legal system is different. "[T]he law must balance the need to compensate those who have been injured by the wrongful actions of another with the concept deeply imbedded in our jurisprudence that a defendant cannot be found liable for an injury unless the preponderance of the evidence supports cause in fact." *Merrell Dow Pharmaceuticals, Inc.*

[3] Appendix 5 was attached as Appendix G2 to Smith's Petition for Review with the Texas Supreme Court.

v. Havner, 953 S.W.2d 706, 718 (Tex. 1995). After examining the purpose of MSDS as compared to the requirements in a court of law, the First District Court of Appeals and other courts' ruling that MSDS, by themselves, are not a reliable basis for expert testimony on causation are based on sound legal reasoning.

VI. The record presented to the lower courts of appeal is not sufficient to determine the reliability of the specific MSDS at issue.

Even if this court found that MSDS could be reliable scientific evidence by themselves, the MSDS referenced in Dr. Friedman's opinion were never made a part of the record. They were not introduced into evidence and only partial portions were presented when Dr. Friedman's deposition was read at trial. As is clear by the exemplar MSDS in the text entitled Occupation Medicine (Appendix 6, App. 27),[4] the language of the MSDS may only half heartedly support Dr. Friedman's opinions. In particular this MSDS reads, "Effects of Overexposure: Non-specific. Severe eye injury can occur. 'Skin irritation may occur when handling finely grounded material.'" (Appendix 6, App. 27). See also *Ferrell v. McDonald's Corp.*, 2002 Tex. App. Lexis 5954 (Tex. App. – Dallas, 2002) n. 3 (MSDS read to state, "could cause" and "generally aggravate" certain conditions.). Even if the court finds that MSDS are a reliable basis for a causational scientific opinion, Smith has failed to present the MSDS at issue in order to examine their basis or even how certain the MSDS state that RADS can be caused by

[4] Appendix 6 was attached as Appendix G5 to Smith's Petition for Review to the Texas Supreme Court.

the exposure to the household cleaners at issue. As a result, the court will not have a sufficient record before it to determine whether the MSDS relied upon by Dr. Gary Friedman even supports his conclusions.

CONCLUSION

Wesley Smith has failed to establish that the United States Supreme Court should grant his Petition for Writ of Certiorari. He has not established a "real and embarrassing" conflict between the Federal Circuit Courts and a State Court of Last Resort since the Texas Supreme Court denied the petition for review. There is not an important issue of federal law involved as no one outside Houston, Texas has complained about the First District Court of Appeals' opinion, an opinion which merely followed precedent from a 1998 Federal Fifth Circuit Court of Appeals and the en banc opinion of the First District Court of Appeals. The alleged uproar has been manufactured and could be easily cured if Dr. Snodgrass and the Houston Hazardous Materials Response Team were advised that MSDS are reliable for their uses, just not reliable by themselves to establish causation in a court of law. It is also clear that MSDS, due to the method by which they are published and their purpose, are not trustworthy and their conclusions cannot be tested. Finally, the issue can never be properly addressed on appeal because Smith has failed to preserve for review the actual MSDS that Dr. Friedman relied upon.

For the foregoing reasons, the United States Supreme Court should deny Wesley Smith's Petition for Writ of Certiorari.

Respectfully submitted,

CURTIS (CURT) W. FENLEY III
Counsel of Record
WARREN T. MCCOLLUM
Attorney for Respondent
FENLEY & BATE, LLP
224 E. Lufkin Ave.
Lufkin, Texas 75901
936-634-3346

APPENDIX 1

[SEAL] OFFICIAL NOTICE FROM
SUPREME COURT OF TEXAS
Post Office Box 12248
Austin, Texas 78711-2248

RE: Case No. 05-0264 [POSTAGE METER]
COA #: 01-02-00677-CV Jan. 27, 2006
STYLE: WESLEY SMITH
v. BROOKSHIRE BROTHERS, INC.

Today the Supreme Court of Texas denied the petition for review in the above-referenced case.

MAIL TO:

MR. WARREN THOMAS MCCOLLUM
FENLEY & BATE LLP
PO BOX 450
LUFKIN TX 75902

APPENDIX 2

U.S. Department of Labor
[SEAL] Occupational Safety & Health Administration
www.osha.gov

Regulations (Standards – 29 CFR)
Health Hazard Definitions (Mandatory) – 1910.1200 App A

- **Part Number:** 1910
- **Part Title:** Occupational Safety and Health Standards
- **Subpart:** Z
- **Subpart Title:** Toxic and Hazardous Substances
- **Standard Number:** 1910.1200 App. A
- **Title:** Health Hazard Definitions (Mandatory)

Although safety hazards related to the physical characteristics of a chemical can be objectively defined in terms of testing requirements (e.g. flammability), health hazard definitions are less precise and more subjective. Health hazards may cause measurable changes in the body – such as decreased pulmonary function. These changes are generally indicated by the occurrence of signs and symptoms in the exposed employees – such as shortness of breath, a non-measurable, subjective feeling. Employees exposed to such hazards must be apprised of both the change in body function and the signs and symptoms that may occur to signal that change.

The determination of occupational health hazards is complicated by the fact that many of the effects or signs and symptoms occur commonly in non-occupationally exposed populations, so that effects of exposure are difficult to separate from normally occurring illnesses. Occasionally, a substance causes an effect that is rarely seen in

the population at large, such as angiosarcomas caused by vinyl chloride exposure, thus making it easier to ascertain that the occupational exposure was the primary causative factor. More often, however, the effects are common, such as lung cancer. The situation is further complicated by the fact that most chemicals have not been adequately tested to determine their health hazard potential, and data do not exist to substantiate these effects.

There have been many attempts to categorize effects and to define them in various ways. Generally, the terms "acute" and "chronic" are used to delineate between effects on the basis of severity or duration. "Acute" effects usually occur rapidly as a result of short-term exposures, and are of short duration. "Chronic" effects generally occur as a result of long-term exposure, and are of long duration.

The acute effects referred to most frequently are those defined by the American National Standards Institute (ANSI) standard for Precautionary Labeling of Hazardous Industrial Chemicals (Z129.1-1988) – irritation, corrosivity, sensitization and lethal dose. Although these are important health effects, they do not adequately cover the considerable range of acute effects which may occur as a result of occupational exposure, such as, for example, narcosis.

Similarly, the term chronic effect is often used to cover only carcinogenicity, teratogenicity, and mutagenicity. These effects are obviously a concern in the workplace, but again, do not adequately cover the area of chronic effects, excluding, for example, blood dyscrasias (such as anemia), chronic bronchitis and liver atrophy.

The goal of defining precisely, in measurable terms, every possible health effect that may occur in the workplace as a

result of chemical exposures cannot realistically be accomplished. This does not negate the need for employees to be informed of such effects and protected from them. Appendix B, which is also mandatory, outlines the principles and procedures of hazard assessment.

For purposes of this section, any chemicals which meet any of the following definitions, as determined by the criteria set forth in Appendix B are health hazards. However, this is not intended to be an exclusive categorization scheme. If there are available scientific data that involve other animal species or test methods, they must also be evaluated to determine the applicability of the HCS.

1. "Carcinogen:" A chemical is considered to be a carcinogen if:

(a) It has been evaluated by the International Agency for Research on Cancer (IARC), and found to be a carcinogen or potential carcinogen; or

(b) It is listed as a carcinogen or potential carcinogen in the Annual Report on Carcinogens published by the National Toxicology Program (NTP) (latest edition); or,

(c) It is regulated by OSHA as a carcinogen.

2. "Corrosive:" A chemical that causes visible destruction of, or irreversible alterations in, living tissue by chemical action at the site of contact. For example, a chemical is considered to be corrosive if, when tested on the intact skin of albino rabbits by the method described by the U.S. Department of Transportation in appendix A to 49 CFR part 173, it destroys or changes irreversibly the structure of the tissue at the site of contact following an exposure period of four hours. This term shall not refer to action on inanimate surfaces.

3. "Highly toxic:" A chemical falling within any of the following categories:

(a) A chemical that has a median lethal dose (LD(50)) of 50 milligrams or less per kilogram of body weight when administered orally to albino rats weighing between 200 and 300 grams each.

(b) A chemical that has a median lethal dose (LD(50)) of 200 milligrams or less per kilogram of body weight when administered by continuous contact for 24 hours (or less if death occurs within 24 hours) with the bare skin of albino rabbits weighing between two and three kilograms each.

(c) A chemical that has a median lethal concentration (LC(50)) in air of 200 parts per million by volume or less of gas or vapor, or 2 milligrams per liter or less of mist, fume, or dust, when administered by continuous inhalation for one hour (or less if death occurs within one hour) to albino rats weighing between 200 and 300 grams each.

4. "Irritant:" A chemical, which is not corrosive, but which causes a reversible inflammatory effect on living tissue by chemical action at the site of contact. A chemical is a skin irritant if, when tested on the intact skin of albino rabbits by the methods of 16 CFR 1500.41 for four hours exposure or by other appropriate techniques, it results in an empirical score of five or more. A chemical is an eye irritant if so determined under the procedure listed in 16 CFR 1500.42 or other appropriate techniques.

5. "Sensitizer:" A chemical that causes a substantial proportion of exposed people or animals to develop an allergic reaction in normal tissue after repeated exposure to the chemical.

6. "Toxic." A chemical falling within any of the following categories:

(a) A chemical that has a median lethal dose (LD(50)) of more than 50 milligrams per kilogram but not more than 500 milligrams per kilogram of body weight when administered orally to albino rats weighing between 200 and 300 grams each.

(b) A chemical that has a median lethal dose (LD(50)) of more than 200 milligrams per kilogram but not more than 1,000 milligrams per kilogram of body weight when administered by continuous contact for 24 hours (or less if death occurs within 24 hours) with the bare skin of albino rabbits weighing between two and three kilograms each.

(c) A chemical that has a median lethal concentration (LC(50)) in air of more than 200 parts per million but not more than 2,000 parts per million by volume of gas or vapor, or more than two milligrams per liter but not more than 20 milligrams per liter of mist, fume, or dust, when administered by continuous inhalation for one hour (or less if death occurs within one hour) to albino rats weighing between 200 and 300 grams each.

7. "Target organ effects."

The following is a target organ categorization of effects which may occur, including examples of signs and symptoms and chemicals which have been found to cause such effects. These examples are presented to illustrate the range and diversity of effects and hazards found in the workplace, and the broad scope employers must consider in this area, but are not intended to be all-inclusive.

a. Hepatotoxins: Chemicals which produce liver damage
Signs & Symptoms: Jaundice; liver enlargement
Chemicals: Carbon tetrachloride; nitrosamines

b. Nephrotoxins: Chemicals which produce kidney damage
Signs & Symptoms: Edema; proteinuria
Chemicals: Halogenated hydrocarbons; uranium

c. Neurotoxins: Chemicals which produce their primary toxic effects on the nervous system
Signs & Symptoms: Narcosis; behavioral changes; decrease in motor functions
Chemicals: Mercury; carbon disulfide

d. Agents which act on the blood or hemato-poietic system: Decrease hemoglobin function; deprive the body tissues of oxygen
Signs & Symptoms: Cyanosis; loss of consciousness
Chemicals: Carbon monoxide; cyanides

e. Agents which damage the lung: Chemicals which irritate or damage pulmonary tissue
Signs & Symptoms: Cough; tightness in chest; shortness of breath
Chemicals: Silica; asbestos

f. Reproductive toxins: Chemicals which affect the reproductive capabilities including chromosomal damage (mutations) and effects on fetuses (teratogenesis)
Signs & Symptoms: Birth defects; sterility
Chemicals: Lead; DBCP

g. Cutaneous hazards: Chemicals which affect the dermal layer of the body
Signs & Symptoms: Defatting of the skin; rashes; irritation
Chemicals: Ketones; chlorinated compounds

h. Eye hazards: Chemicals which affect the eye or visual capacity
Signs & Symptoms: Conjunctivitis; corneal damage
Chemicals: Organic solvents; acids

APPENDIX 3

U.S. Department of Labor
[SEAL] Occupational Safety & Health Administration
www.osha.gov

Regulations (Standards – 29 CFR)
Hazard determinations (Mandatory) – 1910.1200 App B

- **Part Number:** 1910
- **Part Title:** Occupational Safety and Health Standards
- **Subpart:** Z
- **Subpart Title:** Toxic and Hazardous Substances
- **Standard Number:** 1910.1200 App. B
- **Title:** Hazard Determinations (Mandatory)

The quality of a hazard communication program is largely dependent upon the adequacy and accuracy of the hazard determination. The hazard determination requirement of this standard is performance-oriented. Chemical manufacturers, importers, and employers evaluating chemicals are not required to follow any specific methods for determining hazards, but they must be able to demonstrate that they have adequately ascertained the hazards of the chemicals produced or imported in accordance with the criteria set forth in this Appendix.

Hazard evaluation is a process which relies heavily on the professional judgment of the evaluator, particularly in the area of chronic hazards. The performance-orientation of the hazard determination does not diminish the duty of the chemical manufacturer, importer or employer to conduct a thorough evaluation, examining all relevant data and producing a scientifically defensible evaluation. For purposes of this standard, the following criteria shall

be used in making hazard determinations that meet the requirements of this standard.

1. "Carcinogenicity:" As described in paragraph (d)(4) of this section and Appendix A of this section, a determination by the National Toxicology Program, the International Agency for Research on Cancer, or OSHA that a chemical is a carcinogen or potential carcinogen will be considered conclusive evidence for purposes of this section. In addition, however, all available scientific data on carcinogenicity must be evaluated in accordance with the provisions of this Appendix and the requirements of the rule.

2. "Human data:" Where available, epidemiological studies and case reports of adverse health effects shall be considered in the evaluation.

3. "Animal data:" Human evidence of health effects in exposed populations is generally not available for the majority of chemicals produced or used in the workplace. Therefore, the available results of toxicological testing in animal populations shall be used to predict the health effects that may be experienced by exposed workers. In particular, the definitions of certain acute hazards refer to specific animal testing results (see Appendix A).

4. "Adequacy and reporting of data." The results of any studies which are designed and conducted according to established scientific principles, and which report statistically significant conclusions regarding the health effects of a chemical, shall be a sufficient basis for a hazard determination and reported on any material safety data sheet. In vitro studies alone generally do not form the basis for a definitive finding of hazard under the HCS since they have a positive or negative result rather than a statistically significant finding.

The chemical manufacturer, importer, or employer may also report the results of other scientifically valid studies which tend to refute the findings of hazard.

APPENDIX 4

OCCUPATIONAL *and* ENVIRONMENTAL RESPIRATORY DISEASE

Phil Harber, M.D., M.P.H.
Professor of Medicine,
University of California, Los Angeles
Los Angeles, California

Marc B. Schenker, M.D., M.P.H.
Professor of Medicine,
Chairman, Department of Community
and International Health;
Director, Center for Occupational
and Environmental Health, Davis;
Department of Internal Medicine;
Institute of Toxicology and Environmental Health;
University of California, Davis
School of Medicine,
Davis, California

John R. Balmes, M.D.
Associate Professor,
Chief, Division of Occupational
and Environmental Medicine,
attending Physician, Pulmonary and
Critical Care Service,
San Francisco General Hospital,
Department of Medicine,
School of Medicine,
University of California, San Francisco
San Francisco, California

291 Illustrations

[LOGO] **Mosby**
St. Louis Baltimore Boston Carlsbad Chicago
Naples New York Philadelphia Portland London
Madrid Mexico City Singapore Sydney
Tokyo Toronto Wiesbaden

Steps in worksite visit for evaluation of patients

Previsit

Review industry and processes
Interview patient
Define scope and purpose of visit

Visit

Meet plant personnel
Walk through entire plant
Detailed review of patient's work area
Air monitoring

Evaluate adequacy of controls

Engineering (enclosure, process isolation, ventilation)
Administrative
Personal protective equipment

Postvisit

Review results with patient
Report (as appropriate) to employer, health authorities
Prepare recommendations and report

* * *

tion of compensability for workers' compensation purposes (see Chapter 53). In addition, a worksite visit may be needed to determine whether a worker with respiratory disease can safely work and whether special accommodations for the

individual worker need to be implemented so that he or she may be able to work (see Chapter 52). University-based occupational health clinics often incorporate worksite visits as a didactic tool in conjunction with clinic-based teaching. Finally, a worksite visit may be used to observe the patient and other workers at their tasks, to determine the hazards to which the patient and others may be exposed, to ascertain if any monitoring has been or should be conducted, and to determine the effectiveness, or lack thereof, of any controls in place. This may suggest that there are other workers at risk.

Before conducting the worksite evaluation, the industrial hygienist and health practitioners often familiarize themselves with the industry and processes to be surveyed. Company brochures may have descriptions of the industry, the processes, and the products or services produced. Useful information may also be obtained from reference books describing various work processes and common health and safety hazards associated with the industry in question.[1-3] The patient is often the best source of information. For example, he or she may describe specific tasks performed as a molder for a local nonferrous foundry, making aluminum, brass, and bronze castings for various industries. The practitioner can then research the industry in various textbooks, such as Burgess's *Recognition of Health Hazards in Industry*, to obtain a description of the foundry industry, the terminology used (e.g., coremaking, molding, shakeout, and finishing), a discussion of the various elements in the alloys (e.g., copper, zinc, and lead in brass and bronze alloys), and potential exposures one may find in this industry (heavy metals, silica, phenolic binders, etc.).[4]

Patients should be asked about chemicals used by both themselves and other workers. Reference books or computer databases, such as Medline, Toxline, or Toxnet, contain information on the toxic effects of these chemicals.[5-7] The NIOSH-Tic database is available on CD-ROM.[8] In addition to published articles, this database also contains the results of NIOSH Health Hazard Evaluations (HHEs) of various industries and may provide valuable information on health effects associated with particular exposures.

If the patient knows only the brand name of the products, the practitioners may request that the patient ask his or her employer for the material safety data sheets (MSDS, for the product(s) that are of concern. Although not always complete, the MSDS are required in the United States to list the hazardous ingredients (if >1% or >0.1% for carcinogens), the acute and chronic health effects, information regarding reactivity, explosiveness, and fire precautions, disposal information, and information regarding the use of personal protective equipment and proper ventilation. More information regarding the product may be obtained by the practitioners from the regional Poison Control Center or directly from the manufacturer's toxicologist. The practitioner may find when contacting the manufacturer that the actual ingredients that are causing the patient's symptoms may not have been listed on the MSDS because they either constituted less than 1% of the product or the information on the chemicals was not disclosed because of trade secrets. Before visiting the worksite, the patient should be interviewed in detail. In addition, the purpose and scope of the worksite visit should be defined in advance. The physical state, as well

as the chemical identity, should be ascertained. The accompanying box describes these common terms.

Physical state of agents

Dust: A suspension of solid particles in air

Mist: A suspension of liquid droplets in air

Gas: A gas phase contaminant

Vapor: A gas phase contaminant that is primarily liquid as room temperature

Fume: A solid suspension resulting from condensation of products of combustion

Fiber: A solid particle whose length:diameter ratio is high (typically 10:1, although certain regulations employ a 3:1 ratio for definition)

Aerosol: A suspension of particles in air

THE WORKSITE VISIT

The worksite visit usually begins with a meeting with plant personnel. Information collected may include the results of past medical and environmental monitoring, a review of MSDS, a review of the Occupational Safety and Health Administration (OSHA) 200 log for previous years, job descriptions for the employee, results of previous OSHA investigations, medical reports from other physicians, and any other useful information.

For manufacturing operations, the industrial hygienist attempts to follow the production process, from raw materials to finished products. The worksite survey will start at the loading dock, looking at warning labels and packaging of the raw materials, and then follow all the materials through the production process, noting all the

chemicals in use in each area. Special emphasis is given to the area in which the patient works. However, it is advisable to review the entire work process since exposures generated elsewhere in the plant may affect the patient. Areas through which the patient walks should be reviewed. In addition to regular operations, potential exposures to the patient during shutdown or maintenance periods should be assessed. Each process should be observed while in action to determine how the employees are handling the products. It is important to note what intermediate products and by-products are formed, as these may be the source of the health complaints. For example, on a site visit to a pesticide manufacturing plant, an industrial hygienist determined, based on where the individual worked on the line, that the source of his problem was a by-product produced during manufacture of the pesticide and not a reaction to the fairly inert final product. Incompatible operations in close proximity to each other should be noted. For instance, arc welding operations placed too close to a vapor degreaser containing chlorinated hydrocarbon solvents that are not properly vented may allow formation of phosgene gas.

The worksite visitors should also look at areas such as the office areas of manufacturing operations, break rooms, eating areas, bathrooms, and change rooms. Hazardous materials storage and disposal areas are also inspected for potential leaks and offgassing of hazardous materials. Maintenance operations are also inspected as there may be a greater potential during these operations than during normal operation. For example, at an auto assembly plant, it was determined that the maintenance operators cleaning the paint spray booths had the potential for much

greater exposure to the solvents from the paints than spray painters.

Housekeeping practices are also noted, as these may also produce hazardous exposures. To the extent possible, the specific patient should be assessed, since interpersonal differences in work habits exist. For example, dry-sweeping of silica containing clay in a ceramics studio of a local art school generated a significant exposure to the silica. Hydroblasting or steamcleaning may also generate contaminants.

Industrial hygienists may measure exposures with monitoring devices such as detector tubes and pumps or other direct reading instruments. Such short-term testing may be supplemented with follow-up testing for a longer period of time. Exposures may vary dramatically over the course of a day, week, or month. Therefore, it is important for the industrial hygienist to know when obtaining measurements on a site visit, or evaluating measurements taken before the visit, what the actual operating conditions are (were) on the day of sampling. It is important to determine if the workload and potential exposure are (were) lighter than normal, heavier than normal, or average. Often the greatest potential exposure of concern occurs on the swing or night shift. Monitoring during the day shift may not adequately represent the exposure of a patient who is on the other shift.

The monitoring results are compared with relevant standards, such as ACGIH threshold limit values (TLVs) or OSHA permissible exposure limits (PELs).[9,10] Often the results indicate that the levels for suspect contaminants are within the legally allowable limits. However, unusually susceptible patients may develop symptoms at these levels.

ADEQUACY OF CONTROLS

The worksite visit should also evaluate the effectiveness of methods taken to control exposure to hazards. These include engineering controls, such as enclosure of materials, isolation of processes, or ventilation; administrative controls, such as rotation of workers; and personal protective equipment, such as respirators and protective clothing. The adequacy of these measures for specific patients should be evaluated. Relatively simple methods may provide an approximate indication of the adequacy of these controls.

Local exhaust ventilation systems, such as lab fume hoods or portable exhaust ventilation for welding operations, can be evaluated with smoke tubes. Observing the direction of the smoke and how fast it is exhausted will give an indication of the effectiveness, or lack thereof, of the system. The site visitor may examine the exhaust system, checking for holes or improper modification to the ductwork, the positioning of the exhaust ducts, the frequency of filter changes, and the presence or absence of dusts on the surfaces near the exhaust system. On one site visit to a jewelry studio, an industrial hygienist noted the satin buffing wheel was not properly exhausted. There was an abundance of visible dust within the small enclosure for the machine and the filters were quite dirty. Moreover, the air was being recirculated through the filters and back into the room, rather than to the outside. Correcting this problem led to a substantial reduction in the dust generated during this operation.

APPENDIX 5

U.S. Department of Labor
[SEAL] Occupational Safety & Health Administration
www.osha.gov

Standard Interpretations
01/18/1995 – The need for Material Safety Data Sheets (MSDSs).

- **Standard Number:** 1910.1200

January 18, 1995

The Honorable Daniel R. Inouye
United States Senate
Washington, D.C. 20510

Dear Senator Inouye:

This is in further response to your letter of September 29, on behalf of your constituent, Dr. Charles T. Campbell, concerning the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard (HCS). Dr. Campbell questioned the need for Material Safety Data Sheets (MSDSs), which are required to be developed and distributed under the HCS. Please accept my apology for the delay in this response.

Employers and employees need the information contained on MSDSs to protect themselves from hazardous chemical exposures and to work safely with chemical products. The result will be a reduction in chemical source illness and injuries in the workplace. Since the HCS became effective, the use and distribution of MSDSs have proven to be an effective and efficient way to ensure that employers and employees can obtain necessary information on the hazards associated with exposure to chemicals in the workplace.

MSDSs are specified by section 1910.1200(g) of the HCS (enclosed). The MSDS lists the hazardous ingredients of a product, its physical and chemical characteristics (e.g. flammability, explosive properties), its effect on human health, the chemicals with which it can adversely react, handling precautions, the types of measures that can be used to control exposure, emergency and first aid procedures, and methods to contain a spill. When new regulatory information, such as exposure limits, or new health effects information becomes available, the MSDS must be updated to reflect it.

It should also be noted that MSDSs are only required for hazardous chemicals and only to be sent with their initial shipment and with the first shipment after a MSDS is updated. In practice, MSDSs are prepared and provided for many products that are not covered by the HCS. It is our understanding that this is being done for product liability purposes, not for compliance with any Federal regulation. In fact, MSDSs were prepared and made available by many producers prior to implementation of regulatory requirements. In addition, many customers request MSDSs on all products, whether they are hazardous or not.

This practice has also encouraged producers to provide MSDSs for non-hazardous products. While OSHA does not require or encourage this practice, we certainly do not have the authority to prohibit producers from distributing such MSDSs.

We hope this information is helpful to you. Please feel free to contact OSHA's Office of Health Compliance Assistance at (202) 219-8036 if you have any additional questions.

Sincerely,

Joseph A. Dear
Assistant Secretary

APPENDIX 6

Occupational
Medicine

THIRD EDITION

Editor-in-Chief

CARL ZENZ, M.D., Sc.D.
Consultant, Occupational Medicine
Milwaukee, Wisconsin
Clinical Professor, Preventive Medicine
Medical College of Wisconsin
Past President
American Academy of Occupational Medicine

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Section of Preventive Medicine
Department of General Internal Medicine
Cleveland Clinic Foundation
Cleveland, Ohio
Volunteer Associate Professor
Department of Environmental Health

University of Cincinnati Medical Center
Cincinnati, Ohio

with illustrations

[LOGO] **Mosby**

* * *

This consideration can and should transcend "typical" industrial hygiene concerns and impact on related areas.

The potential health hazards associated with the performance of typical maintenance activities (welding, abrasive blasting, solvent cleaning) can be drastically increased if the equipment is potentially contaminated with a pesticide (figs. 47-8 and 47-9). The problem is further compounded if the work is being performed by an outside contractor.

Emergency planning for fires, explosions, spills, and leaks is mandatory if employees and the surrounding community are to be protected from untoward health effects (Fig. 47-10). In this regard, a National Agricultural chemicals Association brochure, *Pre-Fire Planning and Guidelines for Handling Agricultural Chemical Fires* is very informative.[97]

Effective 24-hours-a-day security prevents the entry of unauthorized personnel, such as vandals or juveniles, into areas where chemicals are stored or handled.

Environmental aspects of occupational exposures must be considered. Air-cleaning devices should be utilized on all exhaust ventilation systems. Waste materials, including empty containers, must be permanently disposed of in an environmentally secure manner.

Employee training should be designed to influence employees to comply with appropriate work practices.

Such training should be conducted for all newly hired persons and periodically for all employees.

Training should include the following areas:

1. Qualitative and quantitative identification of materials handled (Fig. 47-11).
2. Potential risks of overexposure
3. Description of signs and symptoms that might occur
4. The importance of industrial hygiene and biologic monitoring and notification of test results
5. Description of work practice controls, including personal protective equipment (respirators, gloves, etc.)
6. First-aid and emergency training

[LOGO] VELSICOL **MATERIAL SAFETY DATA SHEET**

Revised 12/21/77 *"Essentially Similar" to U.S. Department of Labor Form, OSHA-20, Rev. May 12*

SECTION I IDENTIFICATION OF PRODUCTS	
MANUFACTURER'S NAME: Velsicol Chemical Corporation	EMERGENCY TELEPHONE NO. (312) 670-4500
ADDRESS 341 E. Ohio Street, Chicago, Illinois 60611	
TRADE NAME AND SYNONYMS BANVEL Tech. Dicamba	
CHEMICAL NAME AND SYNONYMS 2-methoxy-3, 6-dichlorobenzoic acid	
CHEMICAL FAMILY Organic herbicide	MOLECULAR FORMULA $C_8H_6C1_2O_3$

SECTION II HAZARDOUS COMPONENTS OF MIXTURES			
COMPONENTS %	THRESHOLD LIMIT VALUE	COMPONENTS %	THRESHOLD LIMIT VALUE
Technical Banvel Acute oral LD_{50} (rats) 1707 mg/kg Acute dermal LD_{50} (rabbits) 200 mg/kg Acute inhalation LD_{50}> 9.6 mg/1 (4-hour exposure) Not a skin irritant but extremely irritating and corrosive to the eye			

SECTION III PHYSICAL DATA			
BOILING POINT (°F)		SPECIFIC GRAVITY (H_2O=Y) 30°C (86°F)	1.565
VAPOR PRESSURE ([ILLEGIBLE] Hg) 100°C (212°F)	3.75 X 10	PERCENT VOLATRE BY VOLUME (%)	
VAPOR DENSITY (AIR=1)	7.64	EVAPORATION RATE (___=1)	
SOLUBILITY IN WATER	0.5%	Melting Point °F (900-100°C)	194-212
APPEARANCE AND ODOR Light tan granular solid – practically odorless.			

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINTS	FLAMMABLE UNITS BY VOLUME (%)	LOWER	UPPER
Does not flash			

FIRE EXTINGUISHING MEDIA

Fog or water spray, foam, carbon dioxide.

SPECIAL FIRE FIGHTING PROCEDURES

Wear full protective clothing, self-contained breathing apparatus. Use water spray to keep containers cool. Heat from fire can cause decomposition with the evolution of toxic and irritating fumes.

UNUSUAL FIRE AND EXPLOSION HAZARDS

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

Has not been established

EFFECTS OF OVEREXPOSURE

Nonspecific. Severe eye injury can occur.
"Skin irritation may occur when handling finely ground material."

EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT:	Flush with water for at least 15 minutes; get prompt medical attention.
SKIN CONTACT:	Wash with mild soap and water
INGESTION:	Induce vomiting, saline emetic; call a physician.
INHALATION:	Remove to fresh air.

SECTION VI REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	xx	

INCOMPATIBILITY (*Materials to avoid*)

HAZARDOUS DECOMPOSITION PRODUCTS
Thermal decomposition may yield HC1, organochloride products, carbon monoxide, carbon dioxide.

HAZARDOUS POLYMERIZATION	MAY OCCUR	CONDITIONS TO AVOID
	WILL NOT OCCUR xx	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
Contain spill, sweep and collect in drums; follow by thoroughly washing down with detergent and water. Collect washings, do not allow in drainage ditches or sewers.

WASTE DISPOSAL METHOD
Controlled incineration, designated landfill, or disposal in accordance with applicable local, state and federal regulations.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (*Specify type*)
Low levels – MESA/NIOSH-approved chemical cartridge respirator for pesticides.

VENTILATION	LOCAL EXHAUST	SPECIAL
	MECHANICAL (General)	OTHER

PROTECTIVE GLOVES
Rubber gloves or the equivalent

EYE PROTECTION
Chemical goggles.

OTHER PROTECTION EQUIPMENT
Shower, daily change of clothing.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
Store in area away from seed fertilizers, insecticides or fungicides.

OTHER PRECAUTIONS
Treat as with any pesticide. Self-contained breathing apparatus and protective clothing should be available in case of severe fire.

The information presented herein while not guaranteed was prepared by technically knowledgeable personnel and to the best of our knowledge is true and accurate. It is not intended to be all inclusive and the means and conditions of use and handling may involve other or additional consideration.

Fig. 47-11. A sample material safety data sheet, which has widespread use throughout industry.